

Statistical presentation of
Changing Concentrations of
Livestock for Market
in Ohio,
by sub-areas and counties

G. F. HENNING -:- J. T. HAAS -:- W. H. LIMMER

OHIO AGRICULTURAL EXPERIMENT STATION
Wooster, Ohio

This circular is to be followed by another one expected to be completed within a few months. It will be a study of livestock consumption in Ohio, future projections as to meat consumption and livestock marketings, and an analysis of livestock market location in Ohio.

TABLE OF CONTENTS

	Page
INTRODUCTION.	4
CONCLUSIONS	8
PROCEDURE	10
SECTION I -- TRENDS IN THE LOCATIONAL PATTERNS OF CATTLE MARKETING	
IN OHIO.	15
A. Trends in the Cattle Population in the United States . .	15
B. Trends in the Cattle Population in Ohio.	15
C. Trends in the Dairy Cattle Population.	21
D. Trends in Ohio Cattle Marketings	23
Total Marketings (1950-1958) (1958-1959).	23
Marketings per Square Mile (1950-1958) (1958-1959). . .	26
E. Summary.	28
SECTION II -- TRENDS IN THE LOCATIONAL PATTERNS OF CALF MARKETING	
IN OHIO	30
A. Trends in Ohio Calf Marketings	30
Total Marketings (1950-1958) (1958-1959).	30
Marketings per Square Mile (1950-1958) (1958-1959). . .	32
B. Summary.	33
SECTION III -- TRENDS IN THE LOCATIONAL PATTERNS OF HOG MARKETING	
IN OHIO.	35
A. Trends in the Hog Population in the United States. . . .	35
B. Trends in the Hog Population in Ohio	35
C. Trends in Ohio Hog Marketings.	40
Total Marketings (1950-1958) (1958-1959).	40
Marketings per Square Mile (1950-1958) (1958-1959). . .	42
D. Summary.	44
SECTION IV -- TRENDS IN THE LOCATIONAL PATTERNS OF SHEEP MARKETING	
IN OHIO	46
A. Trends in the Sheep Population in the United States. . .	46
B. Trends in the Sheep Population in Ohio	46
C. Trends in Ohio Sheep Marketings.	51
Total Marketings (1950-1958) (1958-1959).	51
Marketings per Square Mile (1950-1958) (1958-1959). . .	54
D. Summary.	56
SECTION V -- TRENDS IN MARKETING UNITS AVAILABLE IN OHIO.	
A. Total Marketing Units.	63
B. Total Marketing Units per Square Mile.	67
C. Summary.	70
APPENDIX.	72

INTRODUCTION

Ohio's agricultural industry is quite different today from what it was in 1930. During this period agriculture had been subjected to widely differing economic conditions ranging from the depressions of the 1930's to World War II and prosperity. As economic conditions changed it was necessary for agriculture to change with them.

Many factors are responsible for the changes which have been made in Ohio's agriculture. During the depression years of the 1930's both farm population and agricultural production increased as people attempted to escape the effects of the depression in urban areas by moving back to the farm. As agricultural production increased and farm prices declined farm programs were instituted to control production and raise farm income.

With the onset of World War II farm programs were continued and changed to increase rather than curtail agricultural production. Industrial activity began to expand rapidly in Ohio and many farm people went to work in industry to support the war effort. This increased industrialization, which has continued up to the present time, resulted in more and more part-time farming as non-farm employment opportunities became available.

During this entire period agricultural technology rapidly advanced. With the advent of improved farm machinery and the chronic scarcity of farm labor, Ohio farmers found it necessary to invest

large sums of money in mechanizing their farms. This created the need for larger producing units over which the high capital investment in machinery could be spread and which were large enough to be economically efficient units.

This rapidly advancing technology also resulted in the development of new crop varieties and the improvement of commercial fertilizers. Due to these and various other factors, many farmers found it advantageous to specialize in the production of certain crops. This increased specialization has led to increased cash grain sales in certain areas of the state.

These are but a few of the factors which had an influence upon Ohio's agriculture, but it should be recognized that they played an important role in the development of the industry as we know it today.

The purpose of this report is to determine the changes that have been made in the location of livestock production areas as a result of these changing economic conditions. These changes are important to everyone related to the livestock industry in Ohio, especially those engaged in the marketing of livestock. The volume of livestock marketed in a certain area of the state has an important bearing upon the decisions of livestock marketing agencies as to their future plans for new and existing marketing facilities. If marketing agencies are

to have an important place in Ohio's future livestock marketing system, they must make the necessary adjustments to these changes.

The data presented will enable a marketing agency to estimate the amount of livestock available in the community where a market is located. A comparison of this amount with the volume of livestock actually handled by the market will give an indication of the market's effectiveness in attracting livestock and assist management in making adjustments in the future.

This information may also be useful in making an evaluation of possible locations for new or branch livestock marketing facilities, or the removal or consolidation of some of the existing markets. One method of evaluating a given community as a possible market location and estimating the potential volume of available livestock would be to first determine the number of square miles in the marketing area from which livestock will be obtained and multiplying the number of square miles in the prospective market area by the number of each specie of livestock marketed per square mile in that sub-area (Tables 6, 8, 11 and 14). Allowances could be made to take into account the effect of other markets which are competing for livestock in this area.

County Extension Agents will find this information useful in planning their activities in connection with livestock activities in their counties. The information presented by counties in the appendix of this report will give them an insight as to how their county compares with surrounding counties and other counties in Ohio.

CONCLUSIONS

Cattle and calf production in 1959 was concentrated in western and central Ohio (Table 1). Western Ohio (Sub-area 4, see Chart 1) had the largest number of cattle and of calves marketed per square mile and was followed by sub-areas 5 and 7. In each of the three years, 1950, 1958, and 1959, these top three sub-areas remained in the same relative positions as important cattle and calf producing areas, but cattle production became even more highly concentrated in these sub-areas relative to the other sub-areas of the state during this period.

As was true with cattle and calves, hog production in 1959 was concentrated in central and western Ohio. Sub-area 7 marketed the largest number of hogs per square mile and was followed by sub-areas 5 and 4 (Table 1). Although sub-area 7 marketed the largest number of hogs per square mile in 1959, sub-area 5 marketed the largest total number of hogs (see Table 2). Between 1950 and 1959, all sub-areas retained their same relative positions in marketings per square mile.

Table 1

The Three Sub-areas in Which the Largest Number of Cattle, Calves,
Hogs and Pigs, and Sheep and Lambs Were Marketed per Square Mile,
by Rank of Sub-area, Ohio, 1950 and 1959

Rank of Sub-area	Sub-area							
	Cattle		Calves		Hogs and Pigs		Sheep and Lambs	
	1950	1959	1950	1959	1950	1959	1950	1959
First	4	4	4	4	7	7	5	5
Second	5	5	5	5	5	5	2	2
Third	7	7	7	7	4	4	4	4

Source: Tables 6, 8, 11, and 14.

Sheep and lamb production in 1959 was mostly concentrated in central, north central, and west central Ohio. Sub-area 5 marketed the largest number of sheep and lambs per square mile and was followed by sub-areas 2 and 4 (Table 1). There was no change in the rank of these top three sheep and lamb producing areas during the period from 1950 to 1959.

Ranking the sub-areas as to actual numbers of each species of livestock marketed, as in Table 2, differs from the ranking of marketings per square mile in Table 1. This is due to the difference in area or square miles (Chart 1) in each sub-area. However, in the opinion of the writer, the major factor in concentration is the marketings per square mile.

The ranking of sub-areas for sheep and lamb marketings was the same in both marketings per square mile and actual marketings. For hog marketings, the same three sub-areas are the top three sub-areas in both Tables 1 and 2, but arranged in different order. With cattle and calves, the greater number of square miles of sub-area 3 brings it into the top three sub-areas in actual numbers marketed but sub-area 7 has a heavier concentration of number of cattle and calves as shown by the greater marketings per square mile in sub-area 7.

Table 2

The Three Sub-areas Having the Largest Actual Number of Cattle, Calves
Hogs and Pigs, and Sheep and Lambs Marketed, by Rank of
Sub-area, Ohio, 1950 and 1959

Rank of Sub-area	Sub-area							
	Cattle		Calves		Hogs & Pigs		Sheep & Lambs	
	1950	1959	1950	1959	1950	1959	1950	1959
First	5	5	5	5	5	5	5	5
Second	3	3	3	3	7	7	2	2
Third	4	4	4	4	4	4	4	4

Source: Tables 5, 7, 10, and 13.

In summary, the production of all species of livestock in 1959 was concentrated primarily in central and western Ohio (Sub-areas 4, 5, and 7). The trend during the period from 1950 to 1959 was toward increased concentration of livestock production in central and western Ohio and decreased concentration of livestock production in other areas of the state.

PROCEDURE

The analysis presented in this report has been confined largely to the state and sub-area levels in an attempt to eliminate as many confusing details as possible. In order to facilitate the analysis of the information on this basis, Ohio was divided into nine sub-areas, the boundaries of which are shown in Chart 1. These sub-areas correspond to the United States Department of Agriculture's Ohio Crop

Reporting Districts. Data for individual counties are presented in Tables D through L in the Appendix of this report for the benefit of those who are interested in more detailed information.

The total marketings of cattle, calves, hogs, and sheep and lambs from Ohio farms were obtained from the statistical bulletins published by the Ohio Agricultural Experiment Station and the Agricultural Marketing Service of the United States Department of Agriculture. These marketing totals do not include interfarm sales.

Marketings of cattle, calves, hogs, and sheep and lambs for 1958 and 1959 were estimated by using the ratio of the 1957 marketings of each species to the respective number on farms of each species, January 1, 1957.^{1/} Ratios used were cattle, .30008; calves, .12334; hogs, 1.57689; and sheep and lambs, .69885. Multiplying the number of each species on farms January 1, 1958 and 1959, by the respective ratio gives an estimate of the number of each species that would be marketed in 1958 and 1959. As data for the number of cattle and calves on farms are not available separately, the number of all cattle and calves on farms was used to estimate the marketings of both cattle and calves.

Since the marketing figures were state totals, it was necessary to use some method of estimating the marketings for each county.

^{1/} For example, the ratio for cattle would be 725,000 (number of cattle marketed in 1957) over 2,416,000 (number of all cattle and calves on farms January 1, 1957.)

County marketings of cattle, calves, hogs, and sheep and lambs were estimated as follows: The number of each species of livestock marketed in the state was distributed by counties using a percentage distribution of the number of the species on farms in each county for the respective years. For example, in Allen County in 1950, there were 46,000 head of hogs and pigs on farms compared to a total of 3,051,000 hogs and pigs in Ohio, or 1.527 percent. The estimated marketings for Allen County would be 1.527 percent of the total state marketings of 4,423,000 head. This calculation amounts to 67,500 head.

Cattle and calf marketings were distributed by a percentage distribution of all cattle and calves on farms in each county, hog marketings by the number of hogs and pigs on farms in each county, and sheep and lamb marketings by the number of stock sheep on farms in each county.

Marketings per square mile were presented mainly with the hope that they would be of assistance to market management in making future adjustments in the location and operation of marketing facilities.

Marketings per square mile were calculated for each species of livestock for the state and for the sub-areas. Dividing the number of cattle, calves, hogs, or sheep and lambs by the square miles in the state or sub-area was the method used to obtain marketings per

square mile for each species of livestock.

The marketing unit used and presented in Section V of this circular was an attempt to simplify the calculation of the revenue, in the form of marketing charges on livestock sold through the agency, that could be expected by livestock marketing agencies. By converting each species of livestock to a common unit in respect to marketing charges, the effects of the interaction of the trends in livestock concentration of each species can be better presented and more easily analyzed.

The livestock marketing unit was based upon the total marketing charges assessed by livestock markets in Ohio in 1957 for each species of livestock. Each marketing unit represented approximately \$2.00 revenue to the market. In the case of cattle, each head represented one marketing unit. The number of calves, hogs, and sheep comprising one marketing unit was determined by dividing the marketing charges for cattle (\$2.00) by the marketing charges for calves, hogs, and sheep. Dividing the marketings of each species by the number comprising one marketing unit of the respective species gives the number of marketing units.

In calculating the marketing unit, two sets of marketing charges were used; namely, charges made by terminal livestock markets and charges made by auction markets and concentration yards, or local markets.

The terminal market charges were used to calculate the marketing units for the following counties: Lorain, Medina, Summit, Portage, Mahoning, Cuyahoga, Geauga, Trumbull, Lake and Ashtabula Counties in the Cleveland terminal area; Butler, Warren, Hamilton, Clermont, and Brown Counties in the Cincinnati area. Those charges made by auction markets and concentration yards were used to calculate the marketing units in the remaining counties.

Per capita consumption of beef, veal, pork, or lamb and mutton is mentioned several times throughout this circular. To enable the reader to note changes that have taken place in meat consumption since 1925, Table C of the Appendix presents the per capita consumption of beef, veal, pork, and lamb and mutton.

SECTION I

TRENDS IN THE LOCATIONAL PATTERNS OF CATTLE MARKETING IN OHIO

An attempt will be made in this section to determine what shifts have taken place in the location of cattle production and marketing in Ohio. This analysis was made in terms of trends in total marketings and in marketings per square mile for the period 1950 to 1959.

A. Trends in the Cattle Population in the United States^{1/}

The number of all cattle and calves on farms and ranches in the United States (Chart 2) increased from a low of about 57 million head in 1928 to a high of about 97 million head on January 1, 1959. Although the number of cattle on farms has continued to increase, there have been present the familiar fluctuations of the cattle cycle, with the high points of the cycle coming in the years 1934, 1945 and 1956 and the low points coming in the years 1928, 1938, 1949 and 1958. It appears we are now headed for an all time high within the next three to five years.

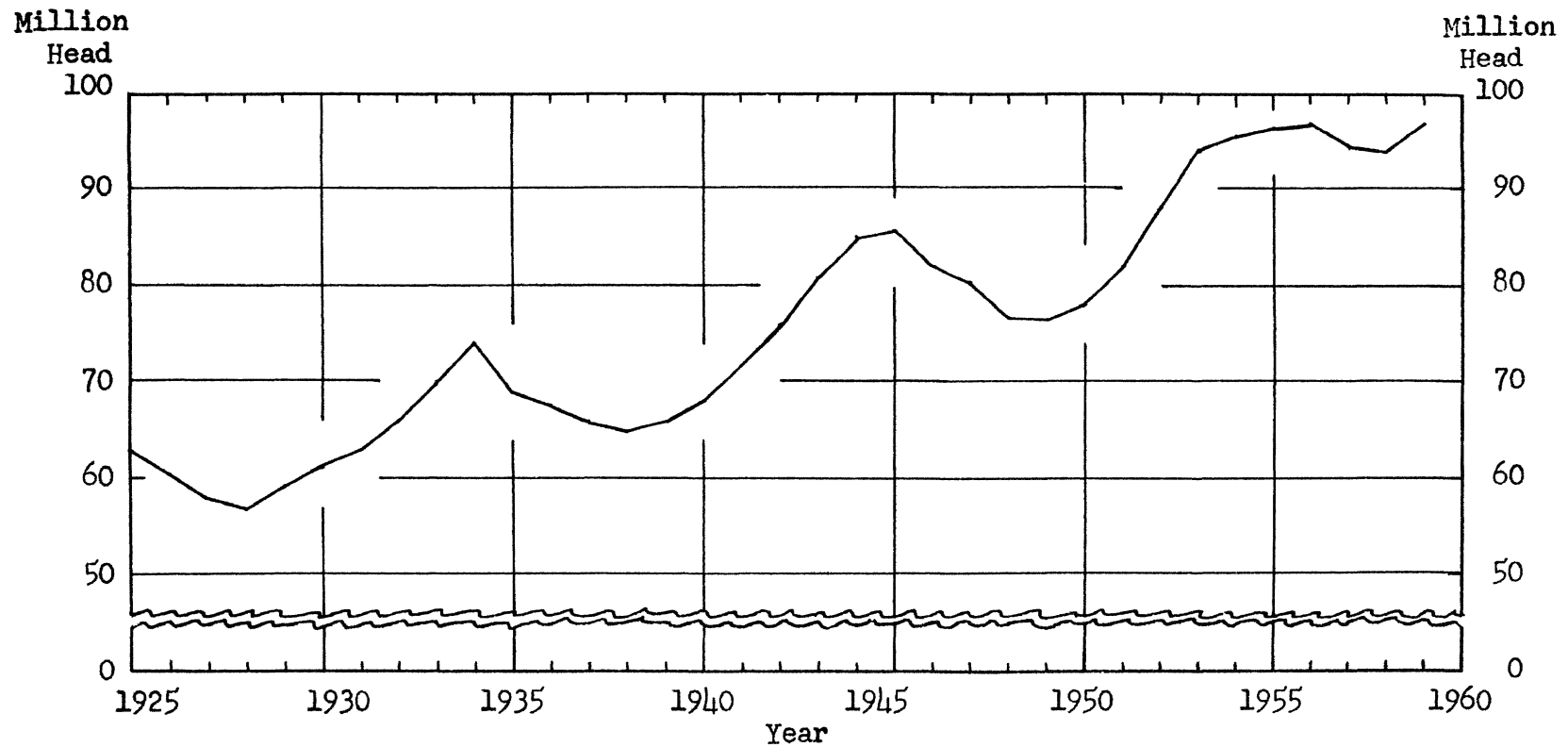
B. Trends in the Cattle Population in Ohio

Ohio's cattle population (Chart 3) also increased. From a low of less than 1,600,000 in 1928, Ohio's cattle population reached a high of about 2,400,000 during 1956 and 1957. However, the fluctuations of the cattle cycle in Ohio were not as pronounced as they were for the country as a whole. When comparing Charts 2 and 3, it might seem as though Ohio's cattle population did not increase in

^{1/} Cattle population refers to the number of all cattle and calves on farms January 1. It includes both beef and dairy cattle.

CHART 2

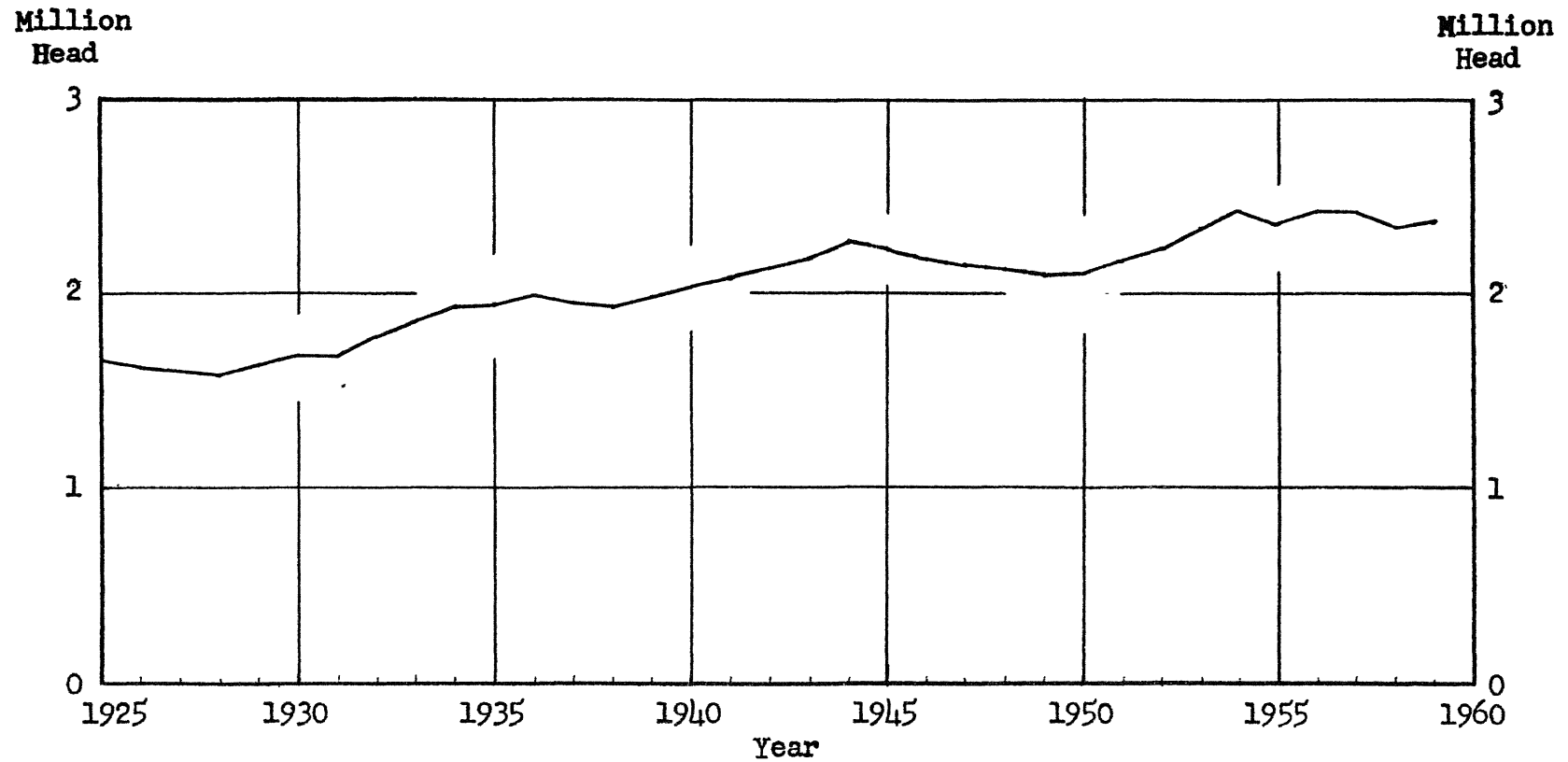
Number of All Cattle and Calves on Farms January 1,
United States, Annually, 1925-1959



Source: Appendix Table A.

CHART 3

Number of All Cattle and Calves on Farms January 1,
Ohio, Annually, 1925-1959



Source: Appendix Table A.

proportion to that of the country. This is due to the different scales used in the two charts. There was, however, only a 10 percent difference in their relative increases. The United States' cattle population increased 53 percent between 1925 and 1959, as compared to an increase of 43 percent for Ohio during the same period.

The number of all cattle and calves on Ohio farms increased 30 percent from 1930 to 1940, 1 percent from 1940 to 1950, 11 percent from 1950 to 1958 and 1 percent from 1958 to 1959 (Table 3). The years 1930, 1940, 1950, 1958 and 1959 do not occupy the same relative positions in the cattle cycle; consequently, the increases shown in Table 3 may be somewhat different than if taken between the high or low points of the cycle.

1. 1930 - 1940 (Ohio)

During the period from 1930 to 1940, the cattle population increased in all areas of Ohio, with the largest percentage increases being in sub-areas 3, 4 and 5 (Table 3). These sub-areas had increases of 32 percent, 39 percent and 36 percent, respectively, all of which were above the state average increase of 30 percent. The other sub-areas had increases ranging from 24 percent to 28 percent.

2. 1940 - 1950 (Ohio)

The cattle population decreased 11 percent, 3 percent, 5 percent and 1 percent, respectively, in Ohio sub-areas 1, 2, 3 and 4 between 1940 and 1950. These decreases offset the increases in the other areas of the state so that the total cattle population in Ohio increased only 1 percent. The largest percentage increase during this

period was 19 percent in sub-area 8, while sub-areas 5, 6, 7 and 9 had increases ranging from 1 percent to 7 percent. This suggests that a shift occurred in the concentration of cattle production, between 1940 and 1950, from the northern part of the state to the central and southern areas.

3. 1950 - 1958 (Ohio)

Ohio's cattle population increased an average of 11 percent between 1950 and 1958. The largest percentage increase in cattle numbers was 19 percent in sub-area 1. Although sub-area 1 had the largest percentage increase, the largest actual increase in cattle numbers was in sub-area 5, which had an increase of 60,300 head. The smallest percentage increase was 2 percent in sub-area 6, followed by sub-areas 9, 3 and 8 with increases of 3 percent, 7 percent and 7 percent, respectively.

Although the number of cattle did increase in sub-areas 3, 6, 8 and 9, between 1950 and 1958, the increases were below the state average. The increases in sub-areas 1, 2, 4, 5 and 7 were above the state average increase of 11 percent, indicating that the production of cattle became more concentrated in these sub-areas relative to other Ohio sub-areas.

4. 1958 - 1959 (Ohio)

During the year from January 1, 1958 to January 1, 1959, Ohio's cattle population increased 1 percent. Changes in the sub-areas varied from an increase of 5 percent in sub-area 1 to a decrease of 4 percent in sub-area 7. Sub-areas having increases were 1, 2, 3, 4, 6 and those having decreases were 7, 8 and 9. Sub-area 5 remained

Table 3

Number of all Cattle and Calves on Farms January 1, 1930, 1940, 1950, 1958 and 1959
and Percentage Change in the Number of all Cattle and Calves on Farms from
1930-1940, 1940-1950, 1950-1958 and 1958-1959, by Sub-area, Ohio

Sub-area	(Change rounded to the nearest percent)								
	Number on Farms January 1					Percentage Change			
	1930	1940	1950	1958	1959	1930-40	1940-50	1950-58	1958-59
1 (N. West)	198,500	247,300	219,100	260,900	274,000	+25	-11	+19	+5
2 (N. Cent)	167,600	211,100	204,400	231,600	240,900	+26	- 3	+13	+4
3 (. East)	232,400	307,600	291,800	312,100	321,500	+32	- 5	+ 7	+3
4 (W. Cent)	201,400	280,700	277,300	310,700	313,800	+39	- 1	+12	+1
5 (Central)	250,400	341,500	360,700	421,000	421,000	+36	+ 6	+17	0
6 (E. Cent)	128,500	161,200	172,500	175,400	178,900	+25	+ 7	+ 2	+2
7 (S. West)	146,100	187,000	189,700	221,800	212,900	+28	+ 1	+17	-4
8 (S. Cent)	106,700	133,800	159,000	170,900	169,200	+25	+19	+ 7	-1
9 (S. East)	178,400	220,800	232,500	239,600	234,800	+24	+ 5	+ 3	-2
Ohio	1,610,000	2,091,000	2,107,000	2,344,000	2,367,000	+30	+ 1	+11	+1

Source: United States Department of Agriculture, Agricultural Marketing Service, Ohio Agricultural Experiment Station, Ohio Agricultural Statistics, 1930, 1940, 1950, 1958, 1959, Ohio Crop Reporting Service, Columbus, Ohio.

relatively unchanged.

C. Trends in the Dairy Cattle Population^{1/}

1. 1950 - 1958 (Ohio)

It might be well at this point to examine Ohio's cattle population more closely to determine its makeup. In 1950, dairy cattle represented 48.8 percent of Ohio's total cattle population. By 1958, the number of dairy cattle on Ohio farms decreased 13 percent, (Table 4) and comprised only 38 percent of Ohio's total cattle population. During this period (1950 - 1958) all sub-areas decreased in dairy cattle numbers, with the largest decrease being 25 percent in sub-area 1. Sub-areas 6, 7 and 9 also had relatively large decreases of 16 percent, 24 percent, and 16 percent, respectively, while sub-areas 2 and 3 had decreases of 8 percent and 3 percent.

While dairy cattle numbers decreased, between 1950 and 1958, the number of cattle other than dairy cattle on Ohio farms increased 35 percent.^{2/} Sub-areas 1 and 7 had respective increases of 63 and 50 percent, while sub-areas 3, 6, 8 and 9 had increases of 21, 21, 24 and 18 percent, respectively.

2. 1958 - 1959 (Ohio)

Ohio's dairy cattle population continued to decline between 1958 and 1959. During this period, the number of dairy cattle on Ohio farms decreased 4 percent, while the number of all other cattle increased 4 percent. However, the composition of Ohio's cattle

^{1/} Dairy cattle population refers to the number of milk cows and heifers, two years old and over, on farms January 1.

^{2/} Cattle other than dairy cattle includes calves.

Table 4

Number of Dairy Cattle and All Other Cattle on Farms January 1, 1950, 1958 and 1959
and Percentage Change from 1950-1958 and 1958-1959, by Sub-areas, Ohio

(Change rounded to the nearest percent)

Sub-area	Dairy Cattle ¹					All Other Cattle ²				
	Number on Farms January 1		Percentage Change			Number on Farms January 1		Percentage Change		
	1950	1958	1959	1950-58	1958-59	1950	1958	1959	1950-58	1958-59
1 (N. West)	110,100	82,800	79,500	-25	-4	109,000	178,100	194,500	+63	+9
2 (N. Cent)	107,500	98,600	96,600	- 8	-2	96,900	133,000	144,300	+37	+8
3 (N. East)	172,600	167,900	162,900	- 3	-3	119,200	144,200	158,600	+21	+10
4 (W. Cent)	138,200	122,700	119,000	-11	-3	139,100	188,000	194,800	+35	+4
5 (Central)	149,000	129,200	122,700	-13	-6	211,700	291,800	298,300	+38	+2
6 (E. Cent)	90,200	75,700	73,400	-16	-3	82,300	99,700	105,500	+21	+6
7 (S. West)	84,600	64,200	59,100	-24	-8	105,100	157,600	153,800	+50	-2
8 (S. Cent)	75,500	67,000	62,300	-11	-7	83,500	103,900	106,900	+24	+3
9 (S. East)	101,300	84,900	81,500	-16	-4	131,200	154,700	153,300	+18	-1
Ohio	1,029,000	893,000	857,000	-13	-4	1,078,000	1,451,000	1,510,000	+35	+4

1/ Milk cows and heifers two years old and over.

2/ Includes all cattle other than milk cows and heifers two years old and over.

Source: United States Department of Agriculture, Agricultural Marketing Service, Ohio Agricultural Experiment Station, Ohio Agricultural Statistics - County Estimates, 1950, 1958, 1959, Ohio Crop Reporting Service, Columbus, Ohio.

population remained about the same; dairy cattle still comprised 36 percent of the total cattle population in 1959.

The most significant changes in dairy cattle numbers came in sub-areas 1, 5, 7, 8 and 9, where respective decreases of 4 percent, 6 percent, 8 percent, 7 percent and 4 percent occurred between 1958 and 1959. Decreases in other sub-areas were 2 or 3 percent.

The total number of cattle, other than dairy cattle, on Ohio farms increased 4 percent between 1958 and 1959. Sub-areas 1, 2 and 3, or the northern one-third of the state, had the greatest increases of 9 percent, 8 percent and 10 percent, respectively. There were, however, two sub-areas which did not have an increase in the number of cattle other than dairy cattle. Sub-area 7 had a decrease of 2 percent and sub-area 9 had a decrease of 1 percent.

The location of the concentration of production of dairy cattle and other cattle is important to marketing agencies in the location and operation of marketing facilities. In 1958, the production of dairy cattle was of greatest importance in sub-areas 3, 4 and 5, while the production of other cattle was of greatest importance in sub-areas 1, 4 and 5.

D. Trends in Ohio Cattle Marketings^{1/}

1. Total Marketings (1950 - 1958)

The number of cattle marketed by Ohio farmers increased 64 percent, or about 274,400 head, between 1950 and 1958 (Table 5). However, cattle marketings did not increase proportionately in all Ohio

^{1/} Cattle marketings refers to the number of all cattle and calves sold alive by farmers. Does not include interfarm sales.

sub-areas, which indicates that a shift occurred in the concentration of cattle production. Sub-areas 1, 2, 4, 5 and 7 had respective increases of 76 percent, 67 percent, 65 percent, 72 percent and 72 percent, all of which are above the increase for the state.

Sub-area 1 had an average increase in cattle marketings of 76 percent, with the largest county increase being 124 percent in Fulton County. The smallest increase was 40 percent in Paulding County.

(Appendix table G)

The increase in cattle marketings in sub-area 2 was 67 percent,

Table 5

Number of Cattle Marketed in 1950, 1958 and 1959
and Percentage Change in the Number of Cattle
Marketed from 1950-1958 and 1958-1959
by Sub-area, Ohio

(Number rounded to the nearest hundred head;)
(change rounded to the nearest percent)

Sub-area	Number Marketed			Percentage Change	
	1950	1958	1959	1950-58	1958-59
1 (N. West)	44,600	78,300	82,200	+76	+5
2 (N. Cent)	41,600	69,500	72,300	+67	+4
3 (N. East)	59,400	93,700	96,500	+58	+3
4 (W. Cent)	56,500	93,200	94,100	+65	+1
5 (Central)	73,500	126,300	126,300	+72	0
6 (E. Cent)	35,100	52,600	53,700	+50	+2
7 (S. West)	38,600	66,600	63,900	+72	-4
8 (S. Cent)	32,400	51,300	50,800	+58	-1
9 (S. East)	47,300	71,900	70,500	+52	-2
Ohio	429,000	703,400	710,300	+64	+1

Source: Appendix Table G.

about the same as the state average. Ashland County had the greatest increase of 82 percent, while Huron County had the smallest increase of 50 percent.

Cattle marketings in sub-area 3 increased 58 percent, which was below the state average increase of 64 percent. While the sub-area as a whole had an increase, Cuyahoga County experienced decreased cattle marketings of 14 percent. Increases in the other counties in sub-area 3 ranged from a low of 25 percent in Lake County to a high of 81 percent in Wayne County.

In sub-area 4 there were 65 percent more cattle marketed in 1958 than in 1950. The largest increase was 81 percent in Clark County. The remainder of the counties had increases ranging down to a low of 55 percent in Darke and Mercer Counties.

Sub-area 5 had a increase of 72 percent in cattle marketings. The largest increases were in Madison and Fayette Counties having increased marketings of 105 percent and 100 percent, respectively. Counties below the sub-area average were Delaware, Franklin, Knox, Licking, Morrow and Union Counties

In eastern and south central Ohio, increased cattle marketings were below the state average of 64 percent with sub-areas 3, 6, 8 and 9 having increases of 58 percent, 50 percent, 58 percent and 52 percent, respectively. In sub-area 6, Holmes County increased 68 percent while Harrison increased only 26 percent. Highland County in sub-area 8 had the high increase of 75 percent. All other counties in sub-area 8 were below the state increase. In sub-area 9, the largest increase was 72 percent in Muskingum County, the

only county in sub-area 9 above the increase for the state, while Noble and Monroe Counties had the lowest decrease of 30 percent.

Sub-area 7's 1958 cattle marketings were up 72 percent from 1950. County increases ranged from 38 percent in Hamilton County to 100 percent in Clinton County.

2. Total Marketings (1958 - 1959)

The estimated number of cattle to be marketed in Ohio in 1959 was one percent greater than the corresponding figure for 1958 (Table 5). Percentage changes for the sub-areas ranged from an increase of 5 percent in sub-area 1 to a decrease of 4 percent in sub-area 7. Increases were evident in sub-areas 1, 2, 3, 4 and 6 and decreases in sub-areas 7, 8 and 9. Sub-area 5 had about the same number marketed in 1959 as in 1958. Generally speaking, the north half of the state had increased marketings while the south half had a decrease in cattle marketings. County changes in cattle marketings ranged from an increase of 7 percent in Williams County to a decrease of 6 percent in Greene and Hamilton Counties. Nearly all counties in sub-areas 7, 8 and 9 had decreased marketings.

3. Marketings per Square Mile (1950 - 1958)

Perhaps a more meaningful measure of the concentration of cattle production is the average number marketed per square mile. In 1950, Ohio's cattle marketings averaged 10 head per square mile (Table 6). The highest concentration of marketings was 14 head per square mile in sub-area 4. Other sub-areas above the state average were 5, 6 and 7. Sub-area 8 had the lowest concentration with only eight head marketed per square mile. Sub-areas 1 and 9 were also low with

Table 6

Number of Cattle Marketed per Square Mile,
by Sub-area, Ohio, 1950, 1958 and 1959

(Rounded to the nearest head)

Sub-area	1950	1958	1959
1 (N. West)	9	16	17
2 (N. Cent)	10	17	17
3 (N. East)	10	16	17
4 (W. Cent)	14	23	23
5 (Central)	12	21	21
6 (E. Cent)	11	16	16
7 (S. West)	11	19	18
8 (S. Cent)	8	13	13
9 (S. East)	9	14	13
Ohio	10	17	17

Source: Derived from Table 5 and Chart 1.

marketings per square mile of nine head of cattle.

In 1958, Ohio farmers marketed an average of 17 head of cattle per square mile. The concentration of cattle marketings were again highest in sub-area 4, with 23 head being marketed per square mile and the lowest again being sub-area 8 with marketings of 13 head per square mile. Sub-area 5 and 7 were above the state average and the remainder of the sub-areas had the same, or fewer, marketings per square mile than did the state as a whole.

4. Marketings per Square Mile (1958 - 1959)

The number of cattle marketed per square mile in Ohio remained

about the same in 1959 as in 1958 (Table 6). In 1959, all sub-areas with the exception of sub-areas 7 and 9 had increased marketings per square mile or remained the same as in 1958. Cattle marketings in 1958 and 1959, as in 1950, were most highly concentrated in sub-areas 4 and 5.

E. Summary

Based upon the data presented, it is apparent that the concentration of cattle production in Ohio shifted between 1950 and 1958. Although the number of cattle on farms and the number marketed increased in all sub-areas of the state, cattle production became more concentrated in sub-areas 1, 2, 4, 5 and 7 (western and central Ohio), as evidenced by the more than proportional increases in the cattle population and marketings in these areas. On the other hand, cattle production became less concentrated in sub-areas 3, 6, 8 and 9.

One of the best indicators of concentration of cattle population is the marketings per square mile. Table 6 indicates that the greatest concentration in 1958 was in sub-areas 4, 5 and 7. Sub-area 3, though not having as great a percentage increase in cattle numbers as sub-areas 1 and 2, had about the same number marketed per square mile.

In the period from 1958 to 1959, there were no significant changes that took place, as would be expected over a one year period. However, the percentage changes in cattle population and marketings over this period do point to greater concentration in the northern two-thirds of the state which had increased numbers, while the

southern one-third (sub-areas 7, 8 and 9) had decreased numbers.

Looking at marketings per square mile in 1958 and 1959 shows the sub-areas to have remained about the same. Sub-area 7, though having decreased numbers, still was the third highest sub-area in cattle production.

SECTION II

TRENDS IN THE LOCATIONAL PATTERNS OF CALF MARKETING IN OHIO

In this study, veal calf production in Ohio has been assumed to parallel the trend in the number of all cattle and calves on farms. Data on calf population as on cattle population was not available separately but only as a total of both cattle and calves. Therefore, the total calf marketings for Ohio was distributed by counties using a percentage distribution of all cattle and calves on farms January 1, 1950 (Appendix table A).

A. Trends in Ohio Calf Marketings^{1/}

1. Total Marketings (1950-1958)

The number of calves marketed in Ohio decreased 22 percent, or about 83,900 head, between 1950 and 1958 (Table 7). Comparing this decrease in calf marketings and the decrease of 13 percent in dairy cattle numbers with the increase of 35 percent in cattle other than dairy cattle would point to a relationship between dairy cattle numbers and calf marketings. It appears evident that a decrease in dairy cattle numbers was one of the major factors for the decrease in calf marketings.

The largest percentage decrease in the number of calves marketed was 29 percent in sub-area 6. Sub-areas 3, 8, and 9 followed closely behind sub-area 6 with decreased calf marketings of 26, 25, and 28 percent, respectively.

^{1/} Does not include interfarm sales.

Table 7

Number of Calves Marketed in 1950, 1958 and 1959 and Percentage
Change in the Number of Calves Marketed from 1950-1958 and
1958-1959, by Sub-areas, Ohio

(Number rounded to the nearest ten head; (change rounded to the nearest percent)					
Sub-area	1950	1958 ^{1/}	1959 ^{1/}	1950-1958	1958-1959
1 (N. West)	38,800	32,200	33,800	-17	+5
2 (N. Cent)	36,200	28,600	29,700	-21	+4
3 (N. East)	51,700	38,500	39,600	-26	+3
4 (W. Cent)	49,100	38,300	38,700	-22	+1
5 (Central)	63,800	51,900	51,900	-19	0
6 (E. Cent)	30,500	21,600	22,100	-29	+2
7 (S. West)	33,600	27,400	26,300	-18	-4
8 (S. Cent)	28,100	21,100	20,900	-25	-1
9 (S. East)	41,200	29,500	29,000	-28	-2
Ohio	373,000	289,100	292,000	-22	+1

^{1/} Estimated

Source: Appendix Table H

All counties in Ohio with the exception of Fulton County had decreased calf marketings. These decreases ranged from 4 percent in Madison County to 50 percent in Cuyahoga County. Counties having decreases less than 10 percent were Henry, 7 percent; Fayette, 8 percent; Madison, 4 percent; Pickaway, 7 percent; and Clinton, 5 percent. Those counties with decreases of 35 percent and over were Cuyahoga, 50 percent; Geauga, 37 percent; Lake, 43 percent; Belmont, 36 percent; Harrison, 39 percent; Scioto, 37 percent; Hocking, 35

percent; Monroe, 37 percent; and Noble, 39 percent.

2. Total Marketings (1958-1959)

The estimate of Ohio's 1959 calf marketings indicated that there were 1 percent more calves marketed in 1959 than were marketed in 1958 (Table 7). As was true for cattle marketings, calf marketings increased in all Ohio sub-areas except sub-areas 7, 8 and 9, the southern third of the state, which had decreases of 4, 1 and 2 percent, respectively. The largest increase was in sub-area 1 with an increase of 5 percent in calf marketings.

3. Marketings per Square Mile (1950-1958)

Ohio farmers marketed an average of nine calves per square mile in 1950 (Table 8). The concentration of calf marketings was greatest in sub-area 4, with 12 head being marketed per square mile. Sub-areas 5 and 7 were also high with marketings of 11 and 10 calves per square mile, respectively. Sub-area 8 was low with marketings of seven calves per square mile.

Table 8 also shows that in 1958 Ohio had average calf marketings of seven head per square mile, a decrease of two head per square mile since 1950 marketings. Sub-area 4 again had the highest concentration of marketings, with 10 calves being marketed per square mile. This was a decrease of two head per square mile under 1950. All other sub-areas had decreases of two head per square mile except sub-area 1 which had a decrease of only one head per square mile.

4. Marketings per Square Mile (1958-1959)

Since calf marketings increased between 1958 and 1959 it follows that calf marketings per square mile should have also increased

Table 8

Number of Calves Marketed per Square Mile, by
Sub-areas, Ohio, 1950, 1958 and 1959

(Rounded to the nearest head)

Sub-area	1950	1958	1959
1 (N. West)	8	7	7
2 (N. Cent)	9	7	7
3 (N. East)	9	7	7
4 (W. Cent)	12	10	10
5 (Central)	11	9	9
6 (E. Cent)	9	7	7
7 (S. West)	10	8	8
8 (S. Cent)	7	5	5
9 (S. East)	8	6	5
Ohio	9	7	7

Source: Derived from Table 7 and Chart 1

between 1958 and 1959. But, due to the fact that the actual changes in calf marketings were so small, the number of calves marketed per square mile in Ohio remained constant at seven (Table 8). All sub-areas with the exception of sub-area 9 also remained the same.

B. Summary

One of the most notable changes since 1950 in cattle and calf production in Ohio has been the change in the ratio of cattle to calves marketed. In 1940 there were 373,000 calves marketed compared to 429,000 cattle giving a ratio of 1: 1.2 or for every calf marketed there was 1.2 head of cattle marketed. In 1958 and 1959 there were

289,100 calves marketed and 703,400 cattle, giving a ratio of 1: 2.4 or for every calf marketed there were 2.4 head of cattle marketed. This was a substantial change since 1950; the number of cattle marketed for every calf marketed has doubled since 1950.

One explanation for this increase in cattle marketings and decrease in calf marketings can be attributed to the decrease in dairy cattle numbers and the large increase in cattle other than dairy cattle. Many of the calves marketed were calves from dairy cows; consequently, a decrease in dairy cows brings about a decrease in calf marketings. In 1950, 49 percent of all cattle and calves was comprised of dairy cows and in 1958, only 38 percent. This means an increase in the proportion of beef cattle.

SECTION III

TRENDS IN THE LOCATIONAL PATTERNS OF HOG MARKETING IN OHIO

This section is concerned with a determination of shifts in the hog areas in Ohio. As in Section I, data on total marketings and marketing per square mile were employed to indicate shifts in areas of concentration of hog marketings in Ohio between 1950 and 1958 and between 1958 and 1959.

A. Trends in the Hog Population in the United States

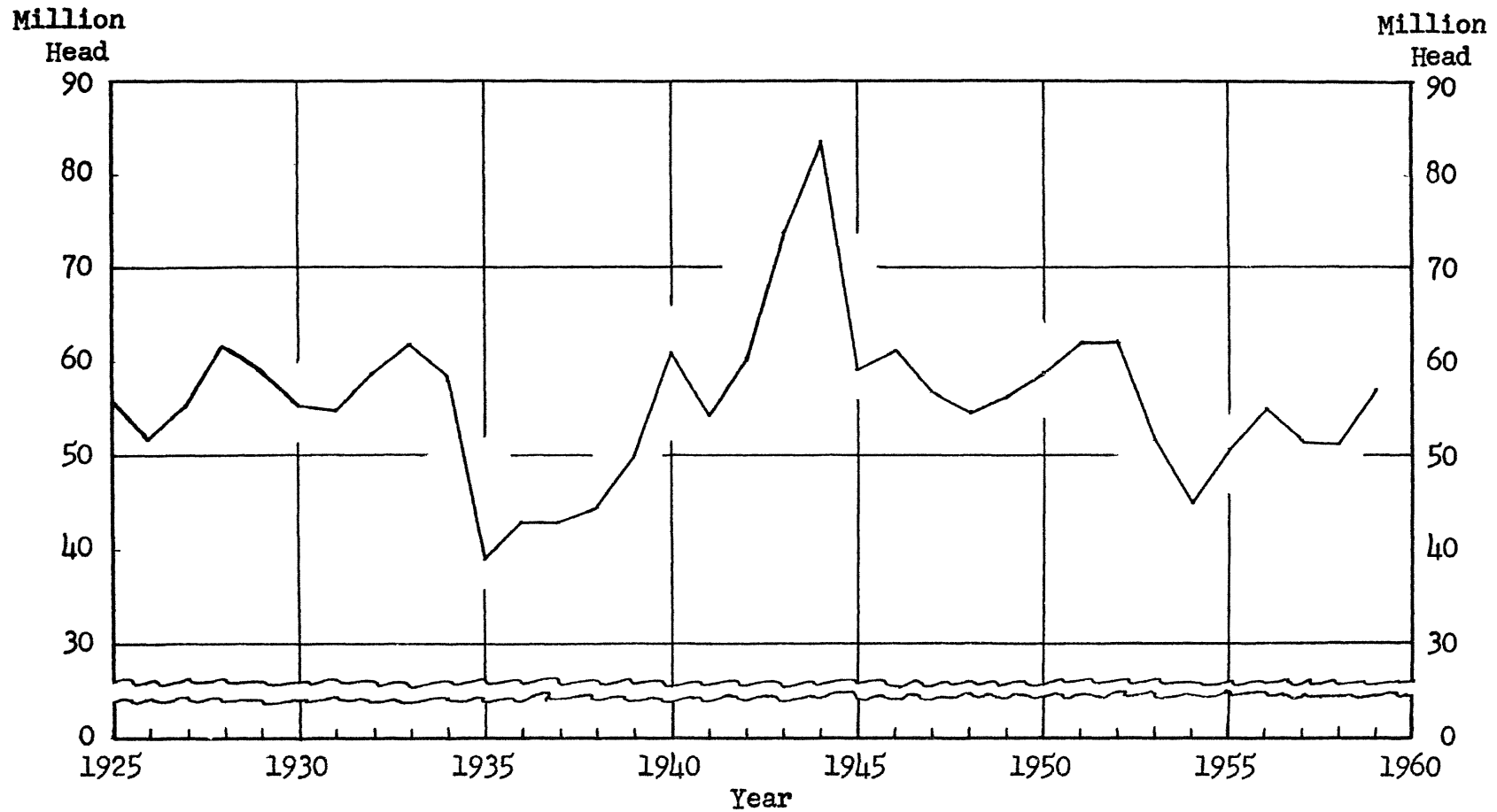
The number of hogs on farms in the United States exhibited wide fluctuations during the 34 year period from 1925 to 1959 (Chart 4). During this period the country had a low hog population of about 39 million head in 1935, and a high hog population of about 83.7 million head in 1944. Although cyclical fluctuations were present, there was a general downward trend in hog numbers in the United States between 1925 and 1959. The average hog population for the five year period, 1954-58 was about 50.8 million head. This represented a decline of about 6.1 million hogs from the average hog population for the five year period, 1925-29, (about 56.9 million hogs). Even though our human population increased rapidly between 1925 and 1958, fewer hogs were available to feed our larger population. The increasing human population and the decreasing hog numbers emphasize the fact that per capita consumption of pork has declined over the past few years.

B. Trends in the Hog Population in Ohio.

The fluctuations of Ohio's hog population (Chart 5) corresponded to

Chart 4

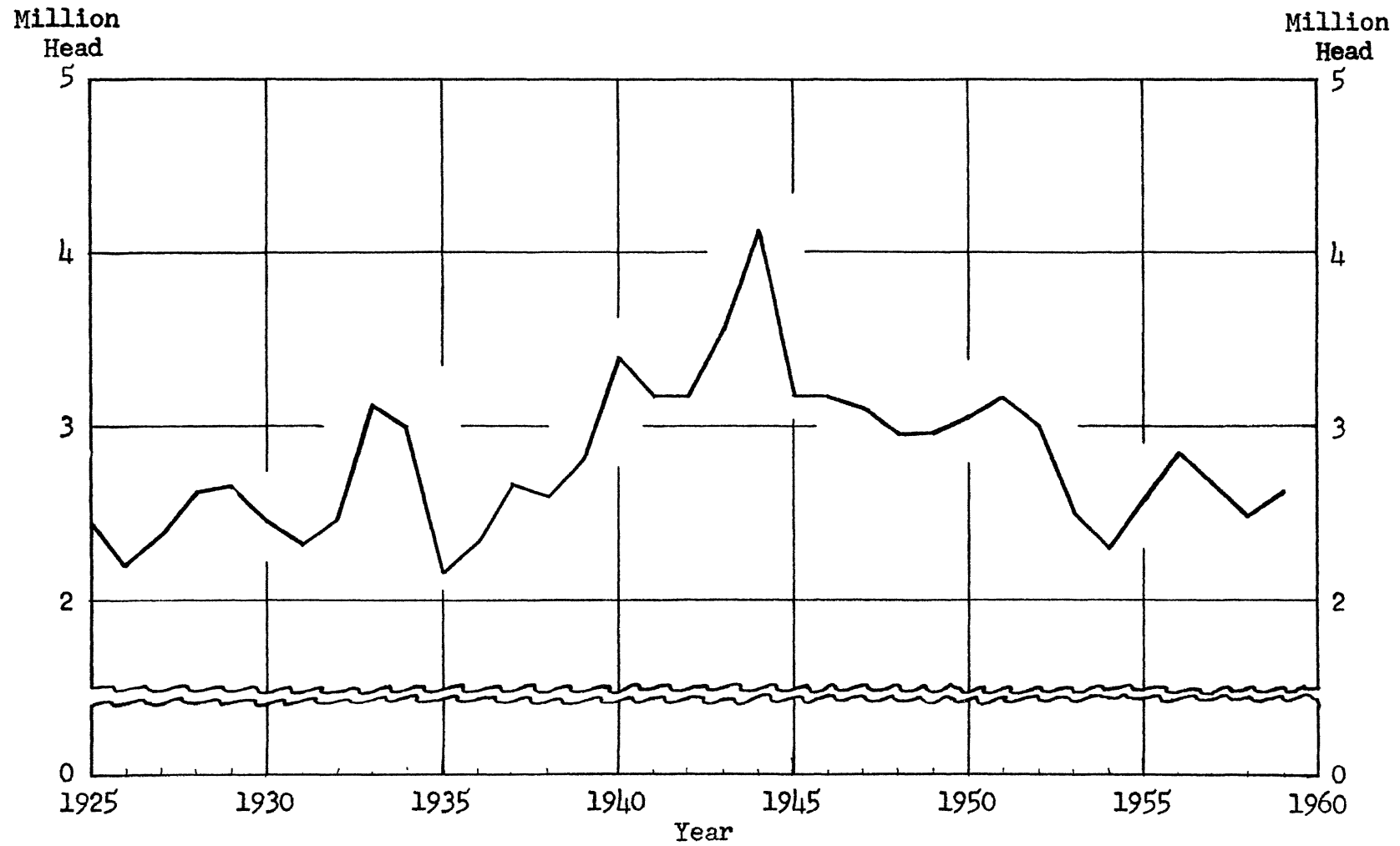
Number of Hogs and Pigs on Farms January 1,
United States, Annually, 1925-1959



Source: Appendix Table A.

Chart 5

Number of Hogs and Pigs on Farms January 1,
Ohio, Annually, 1925-1959



Source: Appendix Table A.

the fluctuations of the United States during the period from 1925 to 1959. However, there was a slight upward trend in Ohio's hog population during this period, the reverse of which was true for the country as a whole. Ohio's average hog population for the five year period 1954-58 (2.59 million hogs) was slightly higher than the average hog population for the five year period, 1925-1929 (2.45 million hogs).

1. 1930-1940 (Ohio)

The number of hogs on Ohio farms January 1 increased an average of 60 percent from 1930 to 1940 (Table 9). This large percentage increase was due partly to the different relative points in the hog cycle in 1930 compared to 1940. Sub-area 3 realized an average increase of 201 percent, the largest in the state. Sub-area 6 had an average increase in hog numbers of 99 percent, also large relative to the state average increase. The smallest percentage increase in the state was 39 percent in sub-area 1.

2. 1940-1950 (Ohio)

During the period from 1940 to 1950 Ohio's hog population decreased 8 percent. Sub-area 7 had an increase of 19 percent and the remainder of the sub-areas had decreases ranging from one percent in sub-areas 5 and 9 to 33 percent in sub-area 3.

3. 1950-1958 (Ohio)

Ohio's hog population exhibited a general downward trend between 1950 and 1958, with 19 percent less hogs on farms in 1958 than in 1950. Decreased hog numbers were common to all Ohio sub-areas, with average decreases ranging from 11 percent in sub-area 7 to 34 percent in sub-area 9.

Table 9

Number of Hogs and Pigs on Farms January 1, 1930, 1940, 1950, 1958 and 1959 and
 Percentage Change in the Number of Hogs and Pigs on Farms from 1930-1940,
1940-1950, 1950-1958 and 1958-1959, by Sub-areas, Ohio

Sub-area	(Change rounded to the nearest percent)									
	Number on Farms January 1					Percentage Change				
	1930	1940	1950	1958	1959	1930-40	1940-50	1950-58	1958-59	
1 (N. West)	351,200	489,100	380,900	301,000	334,100	+ 39	-22	-21	+11	
2 (N. Cent)	232,300	343,400	279,200	231,300	249,800	+ 48	-19	-17	+ 8	
3 (N. East)	67,700	204,000	136,700	106,500	110,800	+201	-33	-22	+ 4	
4 (W. Cent)	402,300	593,700	509,200	403,900	440,300	+ 47	-14	-21	+ 9	
5 (Central)	479,700	783,100	772,800	642,600	681,200	+ 63	- 1	-17	+ 6	
6 (E. Cent)	59,800	119,000	104,900	82,700	86,800	+ 99	-12	-21	+ 5	
7 (S. West)	309,000	471,000	550,000	499,000	507,200	+ 52	+19	-11	+ 2	
8 (S. Cent)	111,000	198,900	194,800	138,200	139,600	+ 79	- 2	-29	+ 1	
9 (S. East)	64,500	113,800	112,500	73,800	78,200	+ 76	- 1	-34	+ 6	
Ohio	2,078,000	3,316,000	3,051,000	2,479,000	2,628,000	+ 60	- 8	-19	+ 6	

Source: United States Department of Agriculture, Agricultural Marketing Service, Ohio Agricultural Experiment Station, Ohio Agricultural Statistics, 1930, 1940, 1950, 1958, 1959, Ohio Crop Reporting Service, Columbus, Ohio

All counties had decreased hog numbers except Greene County which had an increase of 3 percent.

4. 1958-1959 (Ohio)

During the one year period from January 1, 1958 to January 1, 1959 Ohio's hog population increased 6 percent (149,000 head) with all sub-areas having increased hog numbers ranging from 1 percent in sub-area 8 to 11 percent in sub-area 1. All counties except Cuyahoga, Hamilton (both having urban centers), and Scioto Counties had increases in hog numbers.

The substantial percentage increases in sub-areas 1, 2, 3, 6, and 9, sub-areas not considered as hog production areas, are due in part to the relatively small population in these sub-areas giving a low base on which to figure percentage change.

C. Trends in Ohio Hog Marketings

1. Total Marketings (1950-1958)

The downward trend in Ohio's hog population resulted in decreased marketings (Table 10). The 19 percent decrease in hogs on farms resulted in Ohio farmers marketing an average of 12 percent less hogs in 1958 than in 1950.^{1/} Total hog marketings decreased in all sub-areas even though some counties had increased marketings.. Percentage decreases ranged from 3 percent in sub-area 7 to 29 percent in sub-area 9.

Percentage change for the counties ranged from an increase of 12 percent in Greene County to a decrease of 51 percent in Cuyahoga County

^{1/} The percentage decrease in hog marketings is less than the percentage decrease of hogs on farms due to a change in the ratio of the number marketed to the number on farms.

(See Appendix Table I). The only counties having increases were Trumbull, 7 percent; Fayette, 5 percent and Greene, 12 percent. All other Ohio counties had decreased marketings. Many counties having large percentage decreases were counties having low hog marketings in which a small actual decrease in hog numbers would give a high percentage decrease. An example would be Cuyahoga County with an actual decrease of 2,100

Table 10

Number of Hogs and Pigs Marketed in 1950, 1958 and 1959 and Percentage Change in the Number of Hogs and Pigs Marketed from 1950-1958 and 1958-1959, by Sub-area, Ohio

(Number rounded to the nearest ten head; change rounded to the nearest p.c.)

Sub-area	Number Marketed			Percentage Change	
	1950	1958	1959	1950-1958	1958-1959
1 (N. West)	552,200	474,700	526,900	-14	+11
2 (N. Cent)	404,700	364,700	393,900	-10	+8
3 (N. East)	198,200	167,900	174,700	-15	+4
4 (W. Cent)	738,200	636,900	694,300	-14	+9
5 (Central)	1,120,300	1,013,300	1,074,200	-10	+6
6 (E. Cent)	152,100	130,400	136,900	-14	+5
7 (S. Cent)	811,800	786,900	799,800	- 3	+2
8 (S. Cent)	282,400	217,900	220,100	-23	+1
9 (S. East)	163,100	116,400	123,300	-29	+6
Ohio	4,423,000	3,909,100	4,144,100	-12	+6

Source: Appendix Table I

hogs marketed or a percentage decrease of 51 percent, whereas an actual decrease of 4,700 hogs marketed in Montgomery County yields a percentage

decrease of only 7 percent. Counties having decreases over 30 percent were Cuyahoga, 51 percent; Lake, 36 percent; Harrison, 39 percent; Hamilton, 43 percent; Gallia, 39 percent; Lawrence, 36 percent; Pike, 45 percent; Scioto, 46 percent; Athens, 38 percent; Guernsey, 35 percent; Hocking, 34 percent; Morgan, 35 percent; Noble, 38 percent and Washington, 35 percent.

2. Total Marketings (1958-1959)

It was estimated that Ohio farmers would market 4,144,100 hogs in 1959 (Table 10). This represented an increase from 1958 hog marketings of 6 percent, or 235,000 head. Based on this estimate all Ohio sub-areas had increased hog marketings ranging from 1 percent in sub-area 8 to 11 percent in sub-area 1. Sub-areas 2 and 4 also had substantial increases of 8 and 9 percent respectively. All Ohio counties had increased hog marketings except Cuyahoga, Hamilton, and Scioto Counties which had decreased marketings of 5, 1, and 3 percent.

3. Marketings per Square Mile (1950-1958)

In 1950 an average of 108 hogs were marketed per square mile in Ohio, whereas in 1958 only 95 hogs were marketed per square mile (Table 11). In 1950 hog marketings were mostly concentrated in the western half of the state in sub-areas 1, 2, 4, 5, and 7. These sub-areas had respective marketings of 113, 96, 183, 186, and 234 hogs per square mile. This gives a good indication of the concentration of hog production in Ohio in 1950.

In 1958 sub-areas 1, 2, 4, 5, and 7 still remained highly concentrated even though hog marketings decreased throughout the whole state.

In 1950 sub-area 7 had the highest concentration of hog marketings and sub-areas 5 and 4 were second and third respectively. In 1958 sub-area 7 again was high with 227 hogs being marketed per square mile. Sub-area 5 was second and sub-area 4 was third, with respective marketings of 168 and 158 hogs per square mile. Sub-area 9 had the lowest concentration in both years, with 31 in 1950 and only 22 hogs being marketed per square mile in 1958. Sub-areas 3, 6, and 8 were also very low in both 1950 and 1958.

Table 11

Number of Hogs and Pigs Marketed per Square Mile,
by Sub-area, Ohio, 1950, 1958 and 1959

(Rounded to the nearest head)

Sub-area	1950	1958	1959
1 (N. West)	113	98	108
2 (N. Cent)	96	87	94
3 (E. East)	34	29	30
4 (N. Cent)	183	158	172
5 (Central)	186	168	178
6 (E. Cent)	48	40	42
7 (S. West)	234	227	230
8 (S. Cent)	70	54	55
9 (S. East)	31	22	23
Ohio	108	95	101

Source: Derived from Table 10 and Chart 1

4. Marketings per Square Mile (1958-1959)

The number of hogs marketed per square mile in Ohio increased from 95 in 1958 to 101 in 1959 (Table 11). As was true for total hog marketings, the number of hogs marketed per square mile increased in all Ohio sub-areas, the larger increases in marketings per square mile being in the sub-areas having the greater percentage increases.

The largest increase in the number of hogs marketed per square mile occurred in sub-area 4 which had marketings of 158 in 1958 and 172 in 1959 or an increase of 14 head per square mile. Sub-areas 1 and 5 with marketings of 98 and 168 in 1958 and 108 and 178 respectively in 1959 had increases of 10 hogs per square mile from 1958 to 1959. Sub-area 7 had the largest number of hogs marketed per square mile with 227 head in 1958 and 230 head marketed per square mile in 1959.

D. Summary

The production and marketing of hogs in Ohio exhibited three definite trends during the period from 1925 to 1959 (Chart 5). Ohio's hog numbers remained relatively constant between 1925 and 1935, except for fluctuations of the hog cycle. Following 1935 the trend was upward, with Ohio's hog population reaching its high point during World War II (1944). Hog numbers then decreased sharply in 1945 and continued to follow a general downward trend during the 13 year period following 1945 (1946-1958). In fact, the average hog population for the five years (1954-1958) was only 150,000 larger than the average for the five year period 1925-1929.

The downward trend in the country's hog population during the period from 1925 to 1959 was very significant as evidence of the declining per capita consumption of pork. As was pointed out previously, the average hog population in the United States for the five year period 1954-1958 was about 6 million below the average for the five year period 1925-1929. Whereas hog numbers have decreased, our human population has increased from about 123 million in 1930 to about 175 million in 1958, an increase of about 40 percent. These trends emphasize the decline in total pork consumption in the United States during the period from 1930 to 1958, as well as the decline in total pork exports. (See Appendix Chart C).

Hog marketings in Ohio have come to be concentrated primarily in those areas of the state where fertile and relatively level land makes corn production profitable; namely, western and central Ohio (sub-areas 1, 2, 4, 5, and 7). However, during the period from 1950 to 1959 there was a tendency for hog marketings to become slightly less concentrated in northwestern and west central Ohio (sub-areas 1 and 4) as corn became a more important cash crop. South central and southeastern Ohio (sub-areas 8 and 9) also became less concentrated and, along with northeastern and east central Ohio (sub-areas 3 and 6), became relatively unimportant as hog producing areas.

In 1958 sub-area 7 was the most highly concentrated sub-area, as measured by the number of hogs marketed per square mile, but the total number of hogs marketed was the largest in sub-area 5.

SECTION IV

TRENDS IN THE LOCATIONAL PATTERNS OF SHEEP MARKETING IN OHIO

Section IV deals with an analysis of the trends in the concentration of sheep and lamb production in Ohio during the period from 1950 to 1959. The analytical procedure used in this section is identical with that used in Sections I, II, and III.

A. Trends in the Sheep Population in the United States

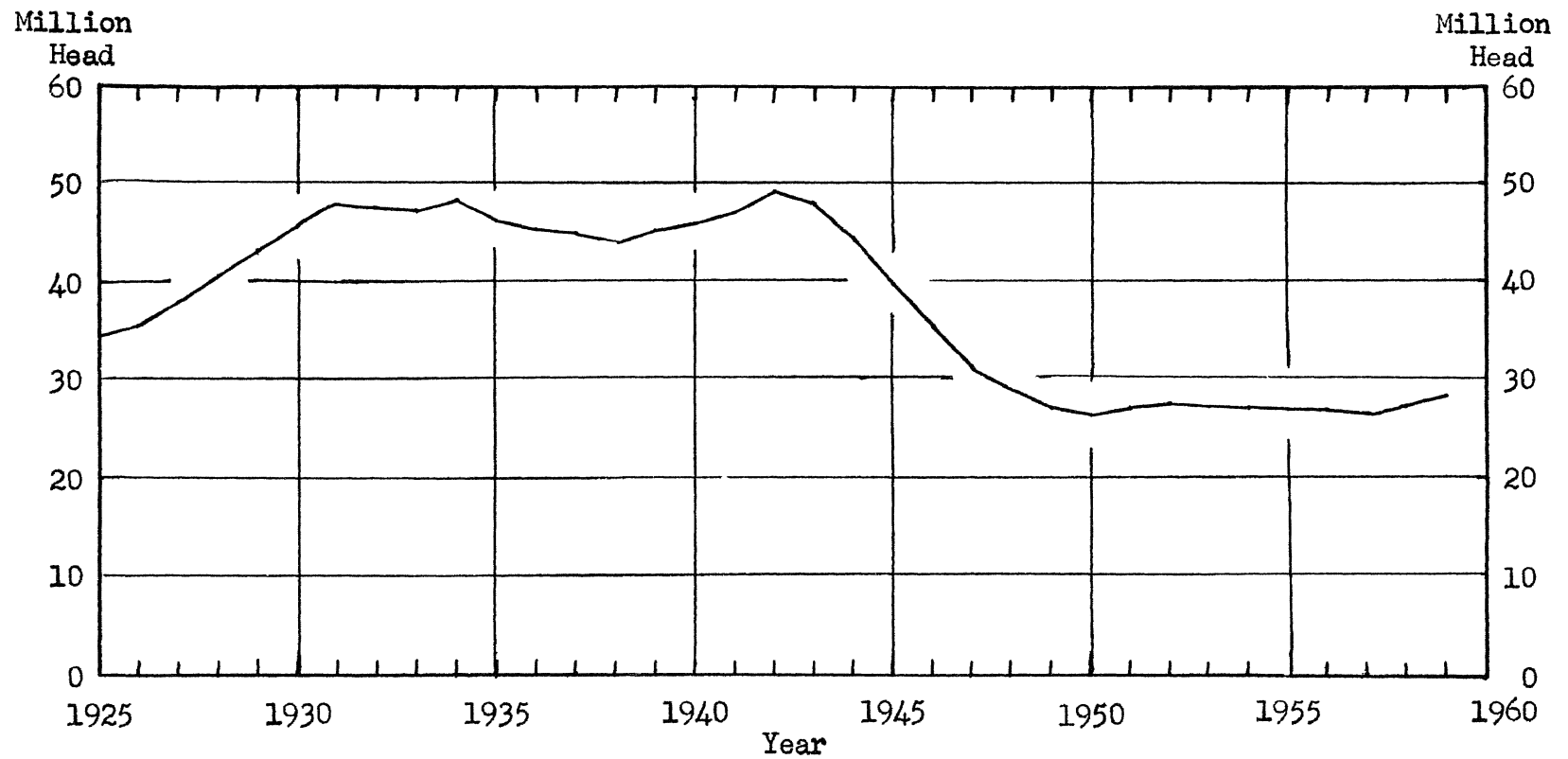
The number of stock sheep on farms in the United States increased from about 34 million head in 1925 to almost 48 million head on January 1, 1934 (Chart 6). The stock sheep population then leveled off and remained relatively constant until January 1, 1942, at which time there were about 49 million head of stock sheep on farms. This was the country's largest stock sheep population during the period from 1925 to 1958. After 1942 the number of stock sheep on farms in the United States decreased rather rapidly until 1950, when the stock sheep population was only about 26 million head. Between 1950 and 1959 the country's stock sheep numbers remained relatively constant at a level just above 26 million head.

B. Trends in the Sheep Population in Ohio

Chart 7 indicates that Ohio's stock sheep population followed somewhat the same trend as that of the United States. In 1925 Ohio had 1.7 million stock sheep on farms. The stock sheep population then increased to 2.26 million head in 1935, after which it declined to about 900,000 head in 1950. Following 1930 Ohio's stock sheep population was largest in 1935, whereas the country's sheep population was

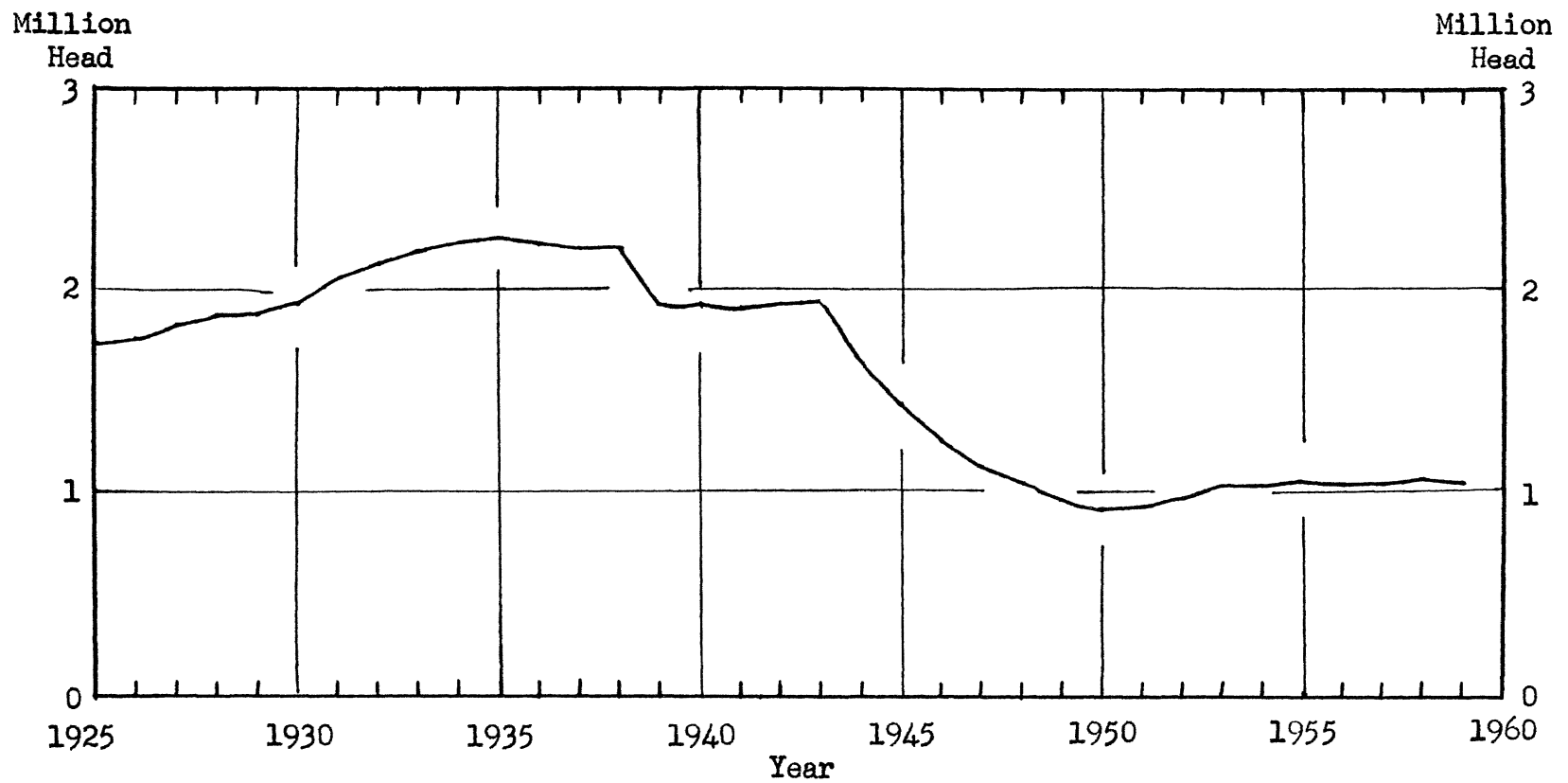
Chart 6

Number of Stock Sheep^{1/} on Farms January 1,
United States, Annually, 1925-1958



Source: Appendix Table A.

Chart 7
Number of Stock Sheep^{1/} on Farms January 1,
Ohio, Annually, 1925-1958



Source: Appendix Table A.

largest in 1942. The smallest sheep population in both the United States and Ohio occurred in 1950.

1. 1930-1940 (Ohio)

The period from 1930 to 1940 saw a decline in Ohio's stock sheep population of 9 percent (Table 12). The largest sub-area decrease in sheep numbers was 19 percent in sub-area 6. Sub-area 7, which had increased sheep numbers of 11 percent, was the only sub-area having an increase between 1930 and 1940.

2. 1940-1950 (Ohio)

During the period from 1940 to 1950 Ohio's stock sheep population declined 51 percent. All sub-areas realized decreased sheep numbers during this period, but the decreases were not proportional in all sub-areas. Sub-areas 1, 2, 3, 4, 5, and 7 had respective decreases of 48 percent, 44 percent, 49 percent, 40 percent, 46 percent, and 42 percent, all of which were below the state average of 51 percent. On the other hand, sub-areas 6, 8, and 9 had respective decreases of 66 percent, 56 percent, and 65 percent.

3. 1950-1958 (Ohio)

Ohio's stock sheep population increased an average of 15 percent between 1950 and 1958. All Ohio sub-areas, with the exception of sub-areas 1 and 6, had increased sheep numbers. Sub-areas 1 and 6 had decreased sheep numbers of 6 and 3 percent, respectively.

The largest percentage increase in stock sheep numbers between 1950 and 1958 was 40 percent in sub-area 3. Sub-area 7, which had an average increase of 35 percent was also high relative to the state

Table 12

Number of Stock Sheep^{1/} on farms January 1, 1930, 1940, 1950, 1958 and 1959 and Percentage Change in the Number of Stock Sheep on farms from 1930-1940, 1940-1950, 1950-1958 and 1958-1959, by Sub-areas, Ohio

(Change rounded to the nearest percent)

Sub-area	Number on Farms January 1				Percentage Change				
	1930	1940	1950	1958	1959	1930-40	1940-50	1950-58	1958-59
1 (N. West)	178,700	171,000	89,600	84,100	84,100	- 4	-48	- 6	0
2 (N. Cent)	295,100	257,800	143,500	180,800	173,600	-13	-44	+26	-4
3 (N. East)	76,900	64,900	32,800	46,000	45,500	-16	-49	+40	-1
4 (N. Cent)	236,100	220,900	132,300	156,100	157,700	- 6	-40	+18	+1
5 (Central)	484,300	485,100	259,700	297,200	298,200	0	-46	+14	0
6 (E. Cent)	273,500	220,700	74,600	72,500	68,900	-19	-66	- 3	-5
7 (S. West)	102,600	113,700	65,500	88,200	85,600	+11	-42	+35	-3
8 (S. Cent)	75,400	65,900	29,100	35,100	32,600	-13	-56	+21	-7
9 (S. East)	382,400	322,000	112,900	117,000	108,800	-16	-65	+ 4	-7
Ohio	2,105,000	1,920,000	940,000	1,077,000	1,055,000	- 9	-51	+15	-2

^{1/} Includes all sheep and lambs except those on feed.

Source: United States Department of Agriculture, Agricultural Marketing Service, Ohio Agricultural Experiment Station, Ohio Agricultural Statistics, 1930, 1940, 1950, 1958, 1959, Ohio Crop Reporting Service, Columbus, Ohio.

average increase. Although the largest percentage increases in stock sheep numbers occurred in sub-areas 2, 3, 7, and 8, the largest actual increases were realized in sub-areas 2, 4, 5, and 7.

4. 1958-1959 (Ohio)

The number of stock sheep on Ohio farms decreased 2 percent, or 22,000 head, between January 1, 1958, and January 1, 1959. A smaller stock sheep population was common to all Ohio sub-areas in 1958 with the exception of sub-areas 4 and 5 which had increases of about 1 percent.

C. Trends in Ohio Sheep Marketings^{1/}

1. Total Marketings (1950-1958)

The number of sheep and lambs marketed in Ohio also increased, with 30 percent more being marketed in 1958 than were marketed in 1950 (Table 13). All sub-areas and nearly all counties had increased marketing over this period. (Appendix Table J)

In sub-area 2 there was an average of 43 percent more sheep and lambs marketed in 1958 than were marketed in 1950. The highest percentage increase was 60 percent in Erie County and the lowest 13 percent in Sandusky County. Ashland and Richland Counties also had high increases of over 50 percent. Even though Erie County had the largest percentage increase, the actual increase was only about 1,200 head.

Sub-area 3 had an average increase in sheep and lamb marketings of 59 percent, the largest percentage increase in the state, but not the greatest actual increase. County changes ranged from a 20 percent

^{1/} Does not include interfarm sales.

increase in Cuyahoga County to an increase of 111 percent in Ashtabula County; however, the actual increase in Cuyahoga County's sheep marketings was only about 100 head.

Sheep and lamb marketings increased an average of 34 percent in sub-area 4, between 1950 and 1958. All counties had increased marketings between 25 and 60 percent.

TABLE 13

Number of Sheep and Lambs Marketed in 1950, 1958, and 1959 and Percentage Change in the Number of Sheep and Lambs Marketed from 1950-1958, and 1958-1959, by Sub-areas, Ohio

(Number rounded to the nearest ten head; change rounded to the nearest p.c.)

Sub-area	Number Marketed		1959	Percentage Change	
	1950	1958		1950-58	1958-59
1 (W. West)	55,100	58,800	58,800	+7	0
2 (N. Cent)	88,200	126,400	121,300	+43	-4
3 (N. East)	20,200	32,100	31,800	+59	-1
4 (W. Cent)	81,300	109,100	110,200	+34	+1
5 (Central)	159,700	207,700	208,400	+30	0
6 (E. Cent)	45,900	50,700	48,200	+10	-5
7 (S. West)	40,300	61,600	59,800	+53	-3
8 (S. Cent)	17,900	24,500	22,800	+37	-7
9 (S. East)	69,400	81,800	76,000	+18	-7
Ohio	578,000	752,700	737,300	+30	-2

Source: Appendix Table J

Sub-area 5 had an average increase in marketings of 30 percent. All counties had increased marketings. Fayette and Union Counties had a low of 17 and 18 percent increases respectively. Franklin and Ross Counties had increases of 45 percent and most of the remaining counties had increases between 30 and 40 percent.

In sub-area 6, sheep and lamb marketings increased 10 percent or 4,800 head. Carroll and Belmont Counties had respective decreases of 6 and 17 percent, all other counties had increases ranging from 6 percent in Harrison County to 37 percent in Tuscarawas County.

The second largest sub-area increase in the state was 53 percent in sub-area 7. Within this sub-area all counties had increases ranging from 76 percent in Warren County to only 11 percent in Hamilton County (See Appendix Table J for other county data).

Sub-area 8's sheep marketings were 37 percent or 6,600 head greater in 1958 than they were in 1950. All counties had increased marketings, the largest increase being 100 percent in Scioto County, and the smallest increase being 9 percent in Gallia County.

The increase in sheep marketings of 18 percent in sub-area 9 was below the state average. Variation among individual counties ranged from no change in Meigs County to an increase of 36 percent in Athens County.

2. Total Marketings (1958-1959)

The number of sheep and lambs marketed in Ohio in 1959 was estimated at 737,300 head (Table 13). This represented a decrease of 2 percent, or 15,400 head, over 1958 sheep and lamb marketings.

Sub-area changes ranged from a decrease of 7 percent in sub-areas 8 and 9 to an increase of 1 percent in sub-area 4. Sub-areas having the greatest decreases were sub-areas 2, 6, 8, and 9 with respective decreases of 4 percent, 5 percent, 7 percent, and 7 percent. In sub-area 1 there were about as many counties having increases as decreases, the changes being no greater than 4 percent. In sub-area 2, all counties except Ottawa County had decreases up to 5 percent. Ottawa County increased 18 percent in marketings of sheep and lambs. Counties in sub-area 3 ranged from an increase of 3 percent in Columbiana County to a decrease of 11 percent in Summit County. Sub-area 4 and 5's sheep and lamb marketings remained about the same with most county changes being about 1 percent.

All counties in sub-areas 6, 7, 8, and 9 had decreased sheep and lamb marketings ranging down to 17 percent in Lawrence County. Based on the above discussion, sheep production is decreasing slowly in Ohio with the southern and eastern sections of the state showing the greater decreases.

3. Marketings per Square Mile (1950-1958)

The number of sheep marketed per square mile in Ohio increased between 1950 and 1958. Table 14 shows that in 1950 there was an average of 14 sheep marketed per square mile in the state as a whole. The highest concentration of sheep marketings was 27 head per square mile in sub-area 5. Sub-areas 2 and 4 also had high concentrations, with 21 and 20 head, respectively, being marketed per square mile. Sub-area 6 and 9 had marketings per square mile which were about equal to

Table 14

Number of Sheep and Lambs Marketed per Square Mile,
by Sub-area, Ohio, 1950, 1958 and 1959

(Rounded to the nearest head)

Sub-area	1950	1958*	1959
1 (N. West)	11	12	12
2 (N. Cent)	21	30	29
3 (N. East)	3	6	5
4 (W. Cent)	20	27	27
5 (Central)	27	35	35
6 (E. Cent)	14	16	15
7 (S. West)	12	18	17
8 (S. Cent)	4	6	6
9 (S. East)	13	16	14
Ohio	14	18	18

Source: Derived from Table 13 and Chart 1

that for the state. Sub-areas 3 and 8 had the lowest concentrations of marketings, with 3 and 4 head, respectively, being marketed per square mile.

In 1958, Ohio farmers marketed an average of 18 sheep per square mile, an increase of 4 head per square mile over 1950. Sub-area 1's marketings per square mile increased to 12 head per square mile. Sub-areas 2, 4, 5, 6, 7, and 9 had respective sheep marketings of 30, 27, 35, 16, and 18 and 16 head per square mile, all of which were increases over marketings in 1950. Sub-area 3 and 8 had increased marketings but were still very low with only 6 sheep being marketed per square mile.

4. Marketings per Square Mile (1958-1959)

The number of sheep and lambs marketed per square mile in Ohio in 1959 remained constant at 18 head per square mile (Table 14). Marketings per square mile remained the same, in 1958 and 1959 as in sub-area 1, 4, 5, and 8, or decreased in the number marketed per square mile. Sub-area 9 had a decrease of 2 head per square mile and sub-areas 2, 3, 6, and 7 had a decrease of 1 head per square mile.

In 1959, sheep and lamb marketings were still concentrated primarily in sub-areas 2, 4, and 5 where 29, 27, and 35 head of sheep and lambs, respectively, were marketed per square mile.

D. Summary

The most significant trend that occurred between 1950 and 1958 was the larger increase in the concentration of sheep production in sub-areas 2, 3, and 7. These sub-areas had large increases in sheep

population, total sheep marketings and sheep marketings per square mile. Sub-areas 4 and 5 also had substantial increases in the concentration of sheep production even though the percentage increases in sheep population and marketings were not as large as in some other areas. Sheep production became less concentrated in sub-areas 1, 6, and 9, as evidenced by less than proportional changes in the number of sheep on farms and the number marketed. Sub-area 3 became only slightly more concentrated--as measured by the number of sheep marketed per square mile--even though it realized relatively large percentage increases in its sheep population and marketings.

In 1959, the concentration of sheep production remained relatively unchanged compared to 1958.

The production of sheep and lambs in 1959 was still concentrated primarily in sub-areas 2, 4, and 5. Sub-areas 3 and 8 were relatively unimportant as sheep and lamb producing areas.

SECTION V

TRENDS IN THE MARKETING UNITS AVAILABLE IN OHIO

Sections I through IV dealt with an analysis of the trends in the concentration of livestock production and marketings by sub-areas and counties of Ohio. In this section, in order to give an idea of the revenue available to livestock marketing agencies in the form of marketing charges through the sale of livestock by Ohio farmers in the various Ohio sub-areas and counties, the number of cattle, calves, hogs, and sheep marketed were converted into a common unit called the marketing unit and derived as described in the introduction of this circular on page 12.

Two sets of charges were used in calculating the marketing units, the terminal charges and the interior marketing charges (Table 15). These charges were then used to determine the number of calves, hogs, and sheep required to comprise a marketing unit as shown in Table 16.

The marketing charges used to calculate the number of each species per marketing unit were 1957 figures. Although the charges have increased since 1957, increases were assumed to have the same relative relationship in 1950, 1958 and 1959 as in 1957. Therefore the number of head per marketing unit for each species was considered to be the same in 1950, 1958 and 1959 as in 1957.

The terminal market charges were used to calculate the marketing units for the following counties: Lorain, Medina, Summit, Portage, Mahoning, Cuyahoga, Geauga, Trumbull, Lake, and Ashtabula Counties in

TABLE 15

Marketing Charges per Head by Species at Interior Markets and at
Cincinnati and Cleveland Terminal Markets, Ohio, 1957

Species	Marketing Charge per Head								
	Interior Markets			Cleveland			Cincinnati		
	Selling Comm.	Yardage	Total	Selling Comm.	Yardage	Total	Selling Comm.	Yardage	Total
Cattle	\$1.45	\$.60	\$2.05	\$1.35	\$.95	\$2.30	\$1.20	\$.92	\$2.12
Calves	.75	.35	1.10	.65	.50	1.15	.60	.44	1.04
Hogs	.30	.20	.50	.35	.40	.75	.36	.30	.66
Sheep	.25	.15	.40	.33	.22	.55	.35	.23	.58

TABLE 16

Total Marketing Charge per Head by Species at Interior Markets and at
Cleveland and Cincinnati Terminal Markets and Number of Head per
Marketing Unit by Species for Interior and Terminal Market
Areas,^{1/} Ohio, 1957

Species	Interior Markets		Cleveland		Cincinnati	
	Number of head		Number of head		Number of head	
	Total Charge	per marketing Unit	Total Charge	per marketing Unit	Total Charge	per marketing Unit
Cattle	2.05	1	2.30	1	2.12	1
Calves	1.10	2	1.15	2	1.04	2
Hogs	.50	4	.75	3	.66	3
Sheep	.40	5	.55	4	.58	4

^{1/} Counties in Cleveland Terminal area: Lorain, Mahoning, Lake, Medina, Cuyahoga, Ashtabula, Summit, Geauga, Portage, Trumbull.
Counties in Cincinnati Terminal area: Butler, Hamilton, Brown, Warren, Clermont.

Source: Derived from Table 15

the Cleveland terminal area, Butler, Warren, Hamilton, Clermont, and Brown in the Cincinnati terminal area. In these counties, three hogs or one head of cattle constituted one marketing unit-similarly, two calves or four sheep. Terminal market charges were used for these counties because the majority of the livestock produced in these counties is marketed through the terminal markets.

Marketing charges assessed by auction markets and local or concentration yards were used to calculate marketing units for the remaining Ohio counties. In these counties, one head of cattle, two calves, four hogs, or five sheep constituted one marketing unit.^{1/}

The marketing units of each species of livestock for each county were derived by dividing the number of the species marketed^{2/} by the number of the species comprising one marketing unit.^{3/} Since some of the sub-areas had counties both in the terminal market areas and the interior market area, the marketing units of an individual species for any of the sub-areas is the total of the marketing units of the particular species in each of the counties located in the sub-area (Tables 17 and 18). For example, the total hog marketing units in sub-area 1 would be the total of the hog marketing units in each of

^{1/} It was thought best to round the data rather than leave one head of cattle, 1.8 calves or 4.1 hogs etc. comprising a marketing unit.

^{2/} Marketings used in the calculation of marketings units were unrounded marketing figures.

^{3/} For example, if one of the counties other than a county in a terminal market area, had 20,000 hogs, then the marketing units would be derived by dividing 20,000 by four giving 5,000 hog marketing units in the county.

Table 17

Number of Cattle and Calf Marketing Units in 1950, 1958, and 1959 and
Percentage Change 1950-1958 and 1958-1959, by Sub-areas, Ohio

(Marketing units rounded to nearest hundred units; change rounded to the nearest percent)

Sub-area	Cattle					Calves				
	Number of Marketing Units			Percent Change		Number of Marketing Units			Percent Change	
	1950	1958	1959	1950-1958	1958-1959	1950	1958	1959	1950-1958	1958-1959
1 (N. West)	44,600	78,300	82,200	+76	+5	19,400	16,100	16,900	-17	+5
2 (N. Cent)	41,600	69,500	72,300	+67	+4	18,100	14,200	14,900	-22	+5
3 (N. East)	59,400	93,700	96,500	+58	+3	25,800	19,200	19,800	-26	+3
4 (W. Cent)	56,500	93,200	94,100	+65	+1	24,500	19,200	19,400	-22	+1
5 (Central)	73,500	126,300	126,300	+72	0	31,900	26,000	26,000	-18	0
6 (E. Cent)	35,100	52,600	53,700	+50	+2	15,300	10,800	11,000	-29	+2
7 (S. West)	38,600	66,600	63,900	+73	-4	16,800	13,700	13,100	-18	-4
8 (S. Cent)	32,400	51,300	50,800	+58	-1	14,100	10,500	10,400	-26	-1
9 (S. East)	47,300	71,900	70,500	+52	-2	20,600	14,800	14,500	-28	-2
Ohio	429,000	703,400	710,300	+64	+1	186,500	144,500	146,000	-23	+1

Source: Appendix Table K

Table 18

Number of Hogs and Sheep Marketing Units in 1950, 1958, and 1959 and
Percentage Change 1950-1958 and 1958-1959, by Sub-areas, Ohio

(Marketing units rounded to nearest hundred units; change rounded to the nearest percent)

Sub-area	Hogs					Sheep				
	Number of Marketing Units		Percent Change			Number of Marketing Units		Percent Change		
	1950	1958	1959	1950-58	1958-59	1950	1958	1959	1950-58	1958-59
1 (N. West)	138,000	118,700	131,700	-14	+11	11,100	11,800	11,800	+6	0
2 (N. Cent)	102,600	92,400	99,700	-10	+8	17,800	25,500	24,500	+43	-4
3 (N. East)	57,100	48,100	50,000	-16	+4	4,600	7,300	7,200	+59	-1
4 (W. Cent)	184,500	159,200	173,600	-14	+9	16,200	21,800	22,100	+35	+1
5 (Central)	280,100	253,300	268,500	-10	+6	31,900	41,600	41,700	+30	+1
6 (E. Cent)	38,000	32,600	34,200	-14	+5	9,200	10,100	9,600	+10	-5
7 (S. West)	223,500	214,400	218,100	-4	+2	8,700	13,300	12,900	+53	-3
8 (S. Cent)	75,000	58,000	58,600	-23	+1	3,700	5,100	4,800	+38	-6
9 (S. East)	40,800	29,100	30,800	-29	+6	13,900	16,400	15,200	+18	-7
Ohio	1,139,600	1,005,800	1,065,200	-12	+6	117,100	152,900	149,800	+31	-2

Source: Appendix Table K

the counties in sub-area 1.

The total marketing units for each county was the total of the number of marketing units of each species in the county. For example, total marketing units for a county would be the total of the cattle, calf, hog, and sheep and lamb marketing units in the county. (For marketing units by species in each county see Appendix table K). The sum of the total marketing units in each county will then give sub-area and state total marketing units (Table 19).

A. Total Marketing Units

Percentage change between 1950 and 1958 and between 1958 and 1959 was calculated to give an estimation of changes in livestock marketing that have been taking place in the state of Ohio. As would be expected, the percentage change in marketing units of the individual species for the sub-areas, or counties, for the two periods mentioned above, was the same as the percentage change in the marketings of each species in the respective sub-area or counties.^{1/} A 14 percent decrease in hog marketings in sub-area 1 between 1950 and 1958 resulted in a 14 percent decrease in hog marketing units in sub-area 1 over the same period of time.

Percentage change was calculated for total marketing units for each county, sub-area, and the state for the two periods, 1950-1958 and 1958-1959, in order to present trends that have taken place in the total volume of marketing units available to marketing agencies from Ohio farms.

^{1/} Slight discrepancies in percentage change are due to rounding error.

1. 1950-1958

The overall state increase in total marketing units was 7 percent between 1950 and 1958 or an actual increase of 134,000 marketing units. Sub-areas 1, 4, and 8 were the only sub-areas below the state average and sub-areas 5 and 7 had the same percentage change as the average percentage change for the state.

For the state as a whole, calf marketing units decreased by 42,000 marketing units and hog marketing units decreased by 133,800 marketing units from 1950 to 1958 or a decrease of 175,800 marketing units for calves and hogs. During this same period cattle marketing units increased by 274,400 marketing units and sheep marketing units increased by 35,800 marketing units or an increase of 310,200 marketing units for cattle and sheep.

This amounts to a net increase of 176,400 marketing units between 1950 and 1958. Comparing these changes in marketing units with actual changes in the number of head for the same period would show calf marketings down 83,900 head and hog marketings down 513,900 head, or a decrease of 597,800 head of calves and hogs. Cattle marketings increased 274,400 head and sheep marketings increased 174,700 head, or an increase of 449,100 head of cattle and sheep. This would be a net decrease of 148,700 head of livestock. From the above data it is evident that it is possible to have a decrease in the number of head of livestock but still have an increase in the number of marketing units.

All sub-areas increased in cattle and sheep marketing units and decreased in calf and hog marketing units in 1958 compared to 1950.

Also, all sub-areas had net increases in total marketing units except sub-area 8 which had decreased total marketing units of one percent. The highest percentage increase was in sub-area 3, the North Central sub-area of the state, with an increase of 15 percent. In sub-area 3 the percentage changes in marketing units for each species were increases of 58 and 59 percent for cattle and sheep respectively, decreases of 26 and 16 percent for calves and hogs respectively.

Sub-area 8, which had a decrease in total marketing units of one percent, had increased cattle and sheep marketing units of 58 and 38 percent respectively but these increases were offset by respective decreases of 26 percent and 23 percent in calf and hog marketing units. It may seem to the reader that there should have been an increase in marketing units as the increases of 58 percent and 38 percent would be thought to outweigh the decreases of 26 percent and 23 percent. However, the actual figures in sub-area 8 were as follows:

Actual increase in cattle marketing units.....	18,900
Actual increase in sheep marketing units.....	<u>1,400</u>
Actual increase in sheep and cattle marketing units	20,300
Actual decrease in hog marketing units.....	17,000
Actual decrease in calf marketing units.....	<u>3,600</u>
Actual decrease in hog and calf marketing units....	20,600

A simple example may serve to give some explanation; an increase from 10 to 20 would be a 100 percent increase, an increase from 100 to 110 would be a 10 percent increase and an increase of 1000 to 1010 would be a 1 percent increase. Even though the actual change was 10 in each case the percentage increase decreased as the numbers between which the percentage change was calculated increased.

For individual county comparisons as to total marketing units in 1950, 1958 and 1959 see Appendix Table L.

Table 19

Total Marketing Units in 1950, 1958 and 1959 and Percentage Change 1950-1958 and 1958-1959, by Sub-areas, Ohio

(Marketing Units rounded to nearest hundred units; change rounded to nearest percent)

Sub-area	Total Marketing Units			Percentage Change	
	1950	1958	1959	1950-58	1958-59
1 (N. West)	213,100	224,900	242,600	6	8
2 (N. Cent)	180,100	201,600	211,400	12	5
3 (N. East)	146,900	168,300	173,500	15	3
4 (W. Cent)	281,700	293,400	309,200	4	5
5 (Central)	417,400	447,200	462,500	7	3
6 (E. Cent)	97,600	106,100	108,500	9	2
7 (S. West)	287,600	308,000	308,000	7	0
8 (S. Cent)	125,200	124,900	124,600	-1	-1
9 (S. East)	122,600	132,200	131,000	8	-1
Ohio	1,972,200	2,006,600	2,071,300	7	3

Source: Derived from Appendix Tables K.

2. 1958-1959

For the state as a whole the number of marketing units was 3 per cent greater in 1959 than in 1958 or an actual increase of 64,700 marketing units. All sub-areas in the northern two-thirds of Ohio (sub-

areas 1 through 6) had a greater number of total marketing units in 1959 than in 1958. The highest percentage increase was eight percent in sub-area 1 and the lowest was two percent in sub-area 6. Sub-areas in the southern half of the state (sub-areas 7, 8, and 9), however, either had decreased marketing units or, as in the case of sub-area 8, remained the same.

Cattle, calf and sheep marketing units decreased in each of the three southern sub-areas (sub-areas 7, 8, and 9). In sub-areas 1 through 6 cattle and calf marketing units increased or remained the same, but sheep marketing units increased only in sub-areas 4 and 5. Hog marketing units increased in all sub-areas.

All counties in the northern two-thirds of the state, except Cuyahoga County, had increases in total marketing units in 1959. These increases ranged from ten percent in Williams County to no change in Lake, Trumbull and Belmont Counties.

Counties in sub-areas 7, 8, and 9 were fairly well divided as to increases and decreases in marketing units; 13 counties had decreases with the largest decrease being 5 percent in Hamilton County; 8 counties had increases of 1 or 2 percent; and 6 counties had no change (see Appendix Table L).

B. Marketing Units per Square Mile

Table 20 is essentially a summary of the concentration of livestock available to marketing agencies and gives some indication of how many livestock markets can be supported in the different areas. Since the data is in a common unit which is the marketing unit, there is no

need to calculate charges for each species to estimate the total revenue available from the sale of livestock in the area. However, if a marketing agency is interested only in one or two species of livestock, then the data in Table 20 would not be as valuable as would be the tables in the previous sections pertaining to the individual species and Tables 17 and 18 showing the marketing units for the individual species.

The state average was 46 marketing units per square mile in 1950, 49 in 1958 and 51 in 1959. Marketing units per square mile were greatest in sub-area 7 in each of the three years, 1950, 1958, and 1959 with respective marketing units per square mile of 83, 89, and 89. Sub-areas 4 and 5 were the only two other sub-areas that were above the state average in each of the three years used in this study. The other six sub-areas were below the state average in each of the three years with sub-areas 3, 8, and 9 being the lowest three sub-areas.

Table 20 also showed that the eastern third to one-half of the state had the lowest number of marketing units per square mile and the west central and southwest areas of the state had the greatest number per square mile.

1. 1950-1958

Marketing units per square mile were greater in all sub-areas except sub-area 8 which remained the same in both years having 31 marketing units per square mile. Sub-area 7 had the greatest number of marketing units in both 1950 and 1958 with 83 and 89 units respectively. Sub-area 9 had the lowest number of marketing units per square mile, 23 in 1950 and 25 in 1958. In addition to sub-area 9, marketing units per square

Table 20

Total Marketing Units per Square Mile, by
Sub-area, Ohio, 1950, 1958 and 1959

Sub-area	1950	1958	1959
1 (N. West)	44	46	50
2 (N. Cent)	43	48	50
3 (N. East)	25	29	30
4 (W. Cent)	70	73	77
5 (Central)	69	74	77
6 (E. Cent)	30	33	33
7 (S. West)	83	89	89
8 (S. Cent)	31	31	31
9 (S. East)	23	25	25
Ohio	46	49	51

Source: Derived from Table 19 and Chart 1

mile were also low in sub-areas 3 and 6 (see Table 20) thus comprising the eastern third of the state.

2. 1958-1959

The sub-areas remained the same or increased in 1959 relative to the marketing units in 1958. Increases were evident in sub-areas 1, 2, 3, 4, and 5, most of the northern half of the state, while the remainder of the sub-areas stayed about the same. The eastern third or more of the state could also be included as staying about the same

since the increase in sub-area 3 was only one marketing unit per square mile.

C. Summary

According to this study hogs made up a greater part of the marketing units of the state in each of the three years, 1950, 1958 and 1959 than did cattle, calves or sheep and lambs. Hog marketing units were greater in all sub-areas except sub-areas 3 and 9 in 1950. (Tables 17 and 18 Appendix Table K). In these two sub-areas cattle marketing units were greater than hog marketing units. In 1958 and 1959 cattle marketing units were also greater than hog marketing units in sub-area 6 as well as in sub-areas 3 and 9. Thus the entire eastern one-third of the state had a greater number of cattle marketing units in 1958 and 1959 than of hog marketing units. Not only were cattle marketing units greater than hog marketing units but the number of cattle marketing units gained relative to hog marketing units. Calf and sheep marketing units were relatively lower than those of cattle and hogs. (For county data as to marketing units see Appendix Tables K and L).

Total marketing units for the state were greater in 1958 than in 1950 and greater in 1959 than in 1958. Increases were also evident in all sub-areas of the northern two-thirds of the state (sub-areas 1, 2, 3, 4, 5 and 6) in each period (Table 19). In the three southern sub-areas, sub-areas 7 and 9 had increased marketing units between 1950 and 1958 but decreased as did sub-area 9 or remained the same as did 7 between 1958 and 1959. Sub-area 8 decreased between 1950 and 1958 and also between 1958 and 1959.

Sub-areas 1, 2, 4, 5 and 7 had over 200,000 total marketing units in 1959. Sub-area 5 was high with about 450,000 units and sub-areas 4 and 7 were also high with about 300,000 marketing units. These sub-areas comprise the northwestern, central, and southwestern sections of the state. The southeastern and eastern sections of the state (sub-areas 3, 6, 8 and 9) tend to be staying about the same or decreasing in total livestock.

Data presented in this section shows that cattle production is increasing in the eastern and southeastern areas of the state while hog production is shifting to the western and central areas.

APPENDIX

List of Appendix Tables

Tables	Page
A Number of Cattle, Hogs and Stock Sheep on Farms January 1, United States and Ohio, Annually, 1925-1959. .	73
B Number of Livestock Marketed, by Species, Annually, . . . 1930-1959, Ohio	75
C Meat Consumption in the United States, 1925 to 1959 . . .	76
D Number of All Cattle and Calves on Farms January 1 in . . 1950, 1958, and 1959 and Percentage Change in the Number on Farms from 1950 to 1958 and 1958 to 1959, . . . by Counties and Sub-areas, Ohio	77
E Number of Hogs and Pigs on Farms January 1 in 1950, . . . 1958 and 1959 and Percentage Change in the Number on. . . Farms from 1950 to 1958 and 1958 to 1959, by Counties . . and Sub-areas, Ohio	77
F Number of Stock Sheep on Farms in 1950, 1958, and 1959 . . and Percentage Change in the Number on Farms from 1950 to 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio. .	77
G Number of Cattle Marketed in 1950, 1958, and 1959 and . . Percentage Change in the Number Marketed from 1950 to . . 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio. .	78
H Number of Calves Marketed in 1950, 1958, and 1959 and . . Percentage Change in the Number Marketed from 1950 to . . 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio. .	81
I Number of Hogs and Pigs Marketed in 1950, 1958, and 1959. and Percentage Change in the Number Marketed from 1950 to 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio. .	84
J Number of Sheep and Lambs Marketed in 1950, 1958, and 1959 and Percentage Change in the Number Marketed from 1950 to 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio. .	87
K Number of Marketing Units for Cattle, Calves, Hogs and. . Sheep and Lambs in 1950, 1958, and 1959, by Counties and . Sub-areas, Ohio	90
L Total Marketing Units in 1950, 1958, and 1959 and Percentage Change in Total Marketing Units from 1950 to . 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio. .	99

Table A
Number of Cattle, Hogs and Stock Sheep on Farms January 1,
United States and Ohio, Annually, 1925-1959

Year	(Thousand head)					
	United States			Ohio		
	Cattle ^{1/}	Hogs ^{2/}	Stock Sheep ^{3/}	Cattle ^{1/}	Hogs ^{2/}	Stock Sheep ^{3/}
1925	63,373	55,770	34,469	1,653	2,440	1,745
1926	60,576	52,105	35,719	1,620	2,220	1,753
1927	58,178	55,496	38,067	1,604	2,398	1,823
1928	57,322	61,873	40,689	1,588	2,638	1,866
1929	58,877	59,042	43,481	1,620	2,562	1,885
1930	61,003	55,705	45,577	1,680	2,462	1,945
1931	63,030	54,835	47,720	1,680	2,330	2,060
1932	65,801	59,301	47,682	1,780	2,485	2,115
1933	70,280	62,127	47,303	1,864	3,130	2,175
1934	74,369	58,621	48,244	1,930	3,035	2,228
1935	68,846	39,066	46,139	1,951	2,160	2,256
1936	67,847	42,975	45,435	1,991	2,333	2,230
1937	66,098	43,083	45,251	1,951	2,660	2,010
1938	65,249	44,525	44,972	1,932	2,607	2,010
1939	66,029	50,012	45,463	1,991	2,800	1,920
1940	68,309	61,165	46,266	2,029	3,420	1,920
1941	71,755	54,353	47,441	2,070	3,181	1,901
1942	76,025	60,607	49,346	2,132	3,181	1,939
1943	81,204	73,881	48,196	2,196	3,563	1,958
1944	85,334	83,741	44,270	2,262	4,133	1,625
1945	85,573	59,373	39,609	2,239	3,182	1,430
1946	82,235	61,306	35,525	2,172	3,182	1,258
1947	80,554	56,810	31,805	2,150	3,118	1,132
1948	77,171	54,590	29,486	2,128	2,962	1,053
1949	76,830	56,257	26,940	2,107	2,962	979
1950	77,963	58,937	26,182	2,107	3,051	940
1951	82,083	62,269	27,251	2,170	3,173	940
1952	88,072	62,117	27,944	2,235	3,014	987
1953	94,241	51,755	27,593	2,347	2,502	1,036
1954	95,679	45,114	27,079	2,417	2,302	1,036
1955	96,592	50,474	27,137	2,369	2,578	1,046
1956	96,804	55,173	27,012	2,416	2,836	1,036
1957	94,502	51,703	26,538	2,416	2,666	1,046
1958	93,967	51,559	27,390	2,344	2,479	1,077
1959	96,851	57,201	28,364	2,367	2,628	1,055

Table A (Continued)

1/ All Cattle and calves.

2/ Hogs and pigs.

3/ Includes all sheep and lambs except those on feed.

Source: UNITED STATES - United States Department of Agriculture, Agricultural Marketing Service, Livestock and Meat Statistics 1957, Statistical Bulletin No. 230, pages 2-4, Tables 3,4, and 5, July, 1958, United States Government Printing Office, Washington 25, D. C.

United States Department of Agriculture, Agricultural Marketing Service, Livestock and Poultry Inventory, January 1, 1959, page 9, United States Government Printing Office, Washington 25, D. C.

OHIO - Ohio Agricultural Experiment Station, Ohio Agricultural Statistics 1940-1941, pages 48, 59, 64; 1942-1946, pages 68, 81, 88; 1949-1950, page 27; 1951-1952, page 25; 1953-1954, page 26; 1955-1956, page 28.

Ohio Agricultural Experiment Station, Ohio Agricultural Statistics--County Estimates, 1957, 1958, 1959.

Table B

Number of Livestock Marketed, by Species, Annually, 1930-1959, Ohio

(Thousand head)

Year	Cattle	Calves	Hogs	Sheep and Lambs		
				Total	Lambs	Sheep
1930	283	434	2,871	1,001	860	141
1931	268	424	2,797	1,078	885	193
1932	310	393	3,011	1,230	1,028	202
1933	311	425	3,597	1,210	1,002	208
1934	328	522	3,281	1,204	1,051	153
1935	460	377	2,401	1,375	1,103	272
1936	490	418	2,788	1,369	969	400
1937	498	399	3,188	1,171	983	188
1938	466	382	3,396	1,298	1,033	265
1939	513	391	3,658	1,188	984	204
1940	495	394	4,469	1,221	1,009	212
1941	459	402	4,189	1,100	954	146
1942	490	404	4,514	1,133	956	177
1943	504	384	4,817	1,376	999	377
1944	513	488	5,301	1,086	772	314
1945	555	464	4,021	1,024	689	335
1946	560	421	4,207	969	737	232
1947	464	471	4,141	783	615	168
1948	502	407	4,195	627	482	145
1949	503	407	4,482	743	606	137
1950	429	373	4,423	578	494	84
1951	472	310	4,846	473	448	25
1952	530	280	4,537	582	516	66
1953	600	301	3,948	757	665	92
1954	698	340	3,827	730	644	86
1955	664	316	4,146	767	670	97
1956	735	324	4,385	771	681	90
1957	725	298	4,204	731	659	72
1958	703	289	3,909	753		
1959	710	292	4,144	737		

Source: Ohio Agricultural Experiment Station, Ohio Agricultural Statistics 1940-1941, pages 51, 60, 67; 1942-1946, pages 71, 82, 91; 1949-1950, pages 34, 36, 37; 1951-1952, pages 32, 34, 35; 1953-1954, pages 36, 37, 38; 1955-1956, pages 36, 37, 38, United States Department of Agriculture, Agricultural Marketing Service, Livestock and Meat Statistics 1957, pages 38, 40, 42, 44, 48, Tables 43, 45, 47, 49, 51, 53, July, 1958, United States Government Printing Office, Washington 25, D. C.

Table C

Meat Consumption in the United States, 1925 to 1959

(Pounds per capita)

Year	Beef	Veal	Lamb and Mutton	Pork
1925	59.5	8.6	5.2	66.8
1926	60.3	8.2	5.4	64.1
1927	54.5	7.4	5.3	67.7
1928	48.7	6.5	5.5	70.9
1929	49.7	6.3	5.6	69.6
1930	48.9	6.4	6.7	67.0
1931	48.6	6.6	7.1	68.4
1932	46.7	6.6	7.1	70.7
1933	51.5	7.1	6.8	70.7
1934	63.8	9.4	6.3	64.4
1935	53.2	8.5	7.3	48.4
1936	60.5	8.4	6.6	55.1
1937	55.2	8.6	6.6	55.8
1938	54.4	7.6	6.9	58.2
1939	54.7	7.6	6.6	64.7
1940	54.9	7.4	6.6	73.5
1941	60.9	7.6	6.8	68.4
1942	61.2	8.2	7.2	63.7
1943	53.3	8.2	6.4	78.9
1944	55.6	12.4	6.7	79.5
1945	59.4	11.9	7.3	66.6
1946	61.6	10.0	6.7	75.8
1947	69.6	10.8	5.3	69.6
1948	63.1	9.5	5.1	67.8
1949	63.9	8.9	4.1	67.7
1950	63.4	8.0	4.0	69.2
1951	56.1	6.6	3.4	71.9
1952	62.2	7.2	4.2	72.4
1953	77.6	9.5	4.7	63.5
1954	80.1	10.0	4.6	60.0
1955	82.0	9.4	4.6	66.8
1956	85.4	9.5	4.4	67.4
1957	84.5	8.8	4.2	61.5
1958	80.5	6.8	4.1	60.5
1959(forecast)	79.0	6.8	4.2	66.0

Source: United States Department of Agriculture, Agricultural Marketing Service, Livestock and Meat Statistics 1957, Stat. Bul. No. 230, page 283, July, 1958. Livestock and Meat Situation, page 6, November 1958, U. S. Government Printing Office, Washington 25, D. C.

Tables D, E, and F have been omitted to reduce printing costs. The sources of the information presented in the omitted tables are given below.

Table D

Source: United States Department of Agriculture, Agricultural Marketing Service, Ohio Agricultural Experiment Station, Ohio Agricultural Statistics - County Estimates, 1950, 1958, 1959, Ohio Crop Reporting Service, Columbus, Ohio.

Table E

Source: United States Department of Agriculture, Agricultural Marketing Service, Ohio Agricultural Experiment Station, Ohio Agricultural Statistics - County Estimates, 1950, 1958, 1959, Ohio Crop Reporting Service, Columbus, Ohio

Table F

Source: United States Department of Agriculture, Agricultural Marketing Service, Ohio Agricultural Experiment Station, Ohio Agricultural Statistics - County Estimates, 1950, 1958, 1959, Ohio Crop Reporting Service, Columbus, Ohio.

Table G

Number of Cattle Marketed in 1950, 1958, and 1959 and Percentage Change in the Number Marketed from 1950 to 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Allen	4,700	7,300	7,700	+55	+5
Defiance	3,200	5,300	5,500	+66	+4
Fulton	5,500	12,300	13,100	+124	+6
Hancock	6,000	9,600	10,000	+60	+4
Henry	3,500	6,800	7,200	+94	+6
Lucas	1,200	2,100	2,100	+75	0
Paulding	2,000	2,800	2,900	+40	+4
Putnam	5,400	9,000	9,400	+67	+4
Van Wert	3,100	5,000	5,200	+61	+4
Williams	4,800	8,500	9,100	+77	+7
Wood	5,200	9,600	10,000	+85	+4
Sub-area 1	44,600	78,300	82,200	+76	+5
Ashland	4,900	8,900	9,300	+82	+4
Crawford	4,900	8,800	9,000	+80	+2
Erie	1,900	3,200	3,400	+68	+6
Huron	4,000	6,000	6,200	+50	+3
Lorain	5,100	8,400	8,800	+65	+5
Ottawa	1,700	2,600	2,600	+53	0
Richland	5,100	8,500	8,800	+67	+4
Sandusky	4,600	8,000	8,400	+74	+5
Seneca	5,500	9,100	9,600	+65	+5
Wyandot	3,900	6,000	6,200	+54	+3
Sub-area 2	41,600	69,500	72,300	+67	+4
Ashtabula	7,600	12,000	12,400	+58	+3
Columbiana	5,800	8,800	9,200	+52	+4
Cuyahoga	700	600	600	-14	0
Geauga	4,000	5,400	5,500	+35	+2
Lake	800	1,000	1,000	+25	0
Mahoning	4,400	6,700	6,700	+52	0
Medina	5,900	9,800	10,000	+66	+2
Portage	5,200	7,700	7,900	+48	+3
Stark	7,000	11,500	12,000	+64	+4
Summit	2,100	3,100	3,100	+48	0
Trumbull	5,900	9,000	9,000	+52	0
Wayne	10,000	18,100	19,100	+81	+6
Sub-area 3	59,400	93,700	96,500	+58	+3

Table G (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Auglaize	5,200	8,300	8,400	+60	+1
Champaign	7,000	12,600	12,800	+80	+2
Clark	5,900	10,700	10,800	+81	+1
Darke	8,900	13,800	13,900	+55	+1
Hardin	4,800	8,500	8,600	+77	+1
Logan	6,200	10,100	10,100	+63	0
Mercer	6,900	10,700	10,700	+55	0
Miami	5,900	9,300	9,600	+58	+3
Shelby	5,700	9,200	9,200	+61	0
Sub-area 4	56,500	93,200	94,100	+65	+1
Delaware	6,500	9,900	10,100	+52	+2
Fairfield	7,700	13,300	13,300	+73	0
Fayette	4,200	8,400	8,500	+100	+1
Franklin	5,700	9,000	8,900	+58	-1
Knox	6,700	10,600	10,800	+58	+2
Licking	9,400	15,400	15,400	+64	0
Madison	5,500	11,300	11,100	+105	-2
Marion	4,000	7,000	6,800	+75	-3
Morrow	5,000	7,900	7,800	+58	-1
Pickaway	6,800	13,300	13,100	+96	-2
Ross	6,200	10,900	11,200	+76	+3
Union	5,800	9,300	9,300	+60	0
Sub-area 5	73,500	126,300	126,300	+72	0
Belmont	6,800	9,300	9,300	+37	0
Carroll	4,200	6,600	6,700	+57	+2
Coshocton	5,600	8,000	8,200	+43	+2
Harrison	3,800	4,800	5,000	+26	+4
Holmes	6,200	10,400	10,600	+68	+2
Jefferson	2,800	4,300	4,400	+54	+2
Tuscarawas	5,700	9,200	9,500	+61	+3
Sub-area 6	35,100	52,600	53,700	+50	+2

Table G (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Butler	6,400	11,300	10,800	+77	-4
Clermont	4,700	6,900	6,600	+47	-4
Clinton	4,200	8,400	8,100	+100	-4
Greene	4,700	8,900	8,400	+89	-6
Hamilton	2,600	3,600	3,400	+38	-6
Montgomery	5,200	8,300	8,100	+60	-2
Preble	5,700	10,300	9,900	+81	-4
Warren	5,100	8,900	8,600	+74	-3
Sub-area 7	38,600	66,600	63,900	+72	-4
Adams	4,800	7,600	7,800	+58	+3
Brown	5,600	8,900	8,900	+59	0
Gallia	4,300	6,900	6,800	+60	-2
Highland	6,900	12,100	11,700	+75	-2
Jackson	2,600	4,200	4,000	+62	-5
Lawrence	2,700	4,000	4,000	+48	0
Pike	2,400	3,400	3,400	+42	0
Scioto	3,100	4,200	4,200	+35	0
Sub-area 8	32,400	51,300	50,800	+58	-1
Athens	4,200	6,500	6,300	+55	-3
Guernsey	5,800	8,500	8,200	+47	-4
Hocking	1,900	2,800	2,700	+47	-4
Meigs	3,600	5,500	5,500	+53	0
Monroe	4,700	6,100	6,000	+30	-2
Morgan	4,400	6,800	6,500	+54	-4
Muskingum	6,700	11,500	11,400	+72	-1
Noble	5,000	6,500	6,500	+30	0
Perry	3,600	5,800	5,700	+61	-2
Vinton	1,500	2,300	2,300	+53	0
Washington	5,900	9,600	9,400	+63	-2
Sub-area 9	47,300	71,900	70,500	+52	-2
Ohio	429,000	703,400	710,300	+64	+1

Source: Derived from Appendix Tables B and C.

Table H

Number of Calves Marketed in 1950, 1958, and 1959 and Percentage Change in the Number Marketed from 1950 to 1958 and 1958 to 1959, by Counties and Sub-areas, Ohio

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Allen	4,100	3,000	3,200	-27	+7
Defiance	2,800	2,200	2,300	-21	+5
Fulton	4,800	5,100	5,400	+ 6	+6
Hancock	5,200	3,900	4,100	-25	+5
Henry	3,000	2,800	3,000	- 7	+7
Lucas	1,000	900	900	-10	0
Paulding	1,800	1,200	1,200	-33	0
Putnam	4,700	3,700	3,800	-21	+3
Van Wert	2,700	2,000	2,100	-26	+5
Williams	4,200	3,500	3,700	-17	+6
Wood	4,500	3,900	4,100	-13	+5
Sub-area 1	38,800	32,200	33,800	-17	+5
Ashland	4,200	3,700	3,800	-12	+3
Crawford	4,300	3,600	3,700	-16	+3
Erie	1,700	1,300	1,400	-24	+8
Huron	3,500	2,400	2,600	-31	+8
Lorain	4,500	3,500	3,600	-20	+3
Ottawa	1,400	1,100	1,100	-21	0
Richland	4,400	3,500	3,600	-20	+3
Sandusky	4,000	3,300	3,400	-17	+3
Seneca	4,800	3,700	3,900	-23	+5
Wyandot	3,400	2,500	2,600	-26	+4
Sub-area 2	36,200	28,600	29,700	-21	+4
Ashtabula	6,600	4,900	5,100	-26	+4
Columbiana	5,000	3,600	3,800	-28	+6
Cuyahoga	600	300	300	-50	0
Geauga	3,500	2,200	2,200	-37	0
Lake	700	400	400	-43	0
Mahoning	3,900	2,800	2,800	-28	0
Medina	5,100	4,000	4,100	-22	+3
Portage	4,500	3,200	3,200	-29	0
Stark	6,100	4,700	4,900	-23	+4
Summit	1,900	1,300	1,300	-32	0
Trumbull	5,100	3,700	3,700	-27	0
Wayne	8,700	7,400	7,800	-15	+5
Sub-area 3	51,700	38,500	39,600	-26	+3

Table H (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Auglaize	4,600	3,400	3,400	-26	0
Champaign	6,100	5,200	5,300	-15	+2
Clark	5,100	4,400	4,500	-14	+2
Darke	7,700	5,600	5,700	-27	+2
Hardin	4,200	3,500	3,500	-17	0
Logan	5,400	4,200	4,100	-22	-2
Mercer	6,000	4,400	4,400	-27	0
Miami	5,100	3,800	4,000	-25	+5
Shelby	4,900	3,800	3,800	-22	0
Sub-area 4	49,100	38,300	38,700	-22	+1
Delaware	5,600	4,100	4,200	-27	+2
Fairfield	6,700	5,500	5,500	-18	0
Fayette	3,700	3,400	3,500	- 8	+3
Franklin	5,000	3,700	3,600	-26	-3
Knox	5,800	4,300	4,400	-26	+2
Licking	8,100	6,300	6,400	-22	+2
Madison	4,800	4,600	4,500	- 4	-2
Marion	3,500	2,900	2,800	-17	-3
Morrow	4,300	3,300	3,200	-23	-3
Pickaway	5,900	5,500	5,400	- 7	-2
Ross	5,400	4,500	4,600	-17	+2
Union	5,000	3,800	3,800	-24	0
Sub-area 5	63,800	51,900	51,900	-19	0
Belmont	5,900	3,800	3,800	-36	0
Carroll	3,600	2,700	2,800	-25	+4
Coshocton	4,900	3,300	3,400	-33	+3
Harrison	3,300	2,000	2,000	-39	0
Holmes	5,400	4,300	4,400	-20	+3
Jefferson	2,400	1,700	1,800	-29	+6
Tuscarawas	5,000	3,800	3,900	-24	+3
Sub-area 6	30,500	21,600	22,100	-29	+2

Table H (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Butler	5,500	4,600	4,500	-16	-2
Clermont	4,100	2,800	2,700	-32	-4
Clinton	3,700	3,500	3,300	-5	-6
Greene	4,100	3,700	3,500	-10	-5
Hamilton	2,200	1,500	1,400	-32	-7
Montgomery	4,500	3,400	3,300	-24	-3
Preble	5,000	4,200	4,100	-16	-2
Warren	4,500	3,700	3,500	-18	-5
Sub-area 7	33,600	27,400	26,300	-18	-4
Adams	4,200	3,100	3,200	-26	+3
Brown	4,800	3,700	3,700	-23	0
Gallia	3,700	2,800	2,800	-24	0
Highland	6,000	5,000	4,800	-17	-4
Jackson	2,300	1,700	1,700	-26	0
Lawrence	2,300	1,700	1,600	-26	-6
Pike	2,100	1,400	1,400	-34	0
Scioto	2,700	1,700	1,700	-37	0
Sub-area 8	28,100	21,100	20,900	-25	-1
Athens	3,700	2,700	2,600	-27	-4
Guernsey	5,100	3,500	3,400	-31	-3
Hocking	1,700	1,100	1,100	-35	0
Meigs	3,100	2,300	2,200	-26	-4
Monroe	4,000	2,500	2,500	-37	0
Morgan	3,900	2,800	2,700	-28	-3
Muskingum	5,800	4,700	4,700	-19	0
Noble	4,400	2,700	2,700	-39	0
Perry	3,100	2,400	2,300	-23	-4
Vinton	1,300	900	900	-31	0
Washington	5,100	3,900	3,900	-24	0
Sub-area 9	41,200	29,500	29,000	-28	-2
Ohio	373,000	289,100	292,000	-22	+1

Source: Derived from Appendix Tables B and D.

Table I

Number of Hogs and Pigs Marketed in 1950, 1958, and 1959 and
Percentage Change in the Number Marketed from 1950 to 1958,
1958 to 1959, by Counties and Sub-areas, Ohio

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Allen	67,500	52,500	57,700	-22	+10
Defiance	28,600	24,300	25,700	-15	+ 6
Fulton	69,900	61,700	68,400	-12	+11
Hancock	91,800	82,600	90,900	-10	+10
Henry	32,000	28,200	30,800	-12	+ 9
Lucas	17,700	16,900	18,600	- 5	+10
Paulding	15,700	11,400	12,300	-27	+ 8
Putnam	90,400	80,400	90,500	-11	+13
Van Wert	32,000	24,100	27,600	-25	+14
Williams	62,500	51,700	52,500	-17	+13
Wood	44,100	40,900	45,900	- 7	+12
Sub-area 1	552,200	474,700	526,900	-14	+11
Ashland	33,000	33,000	35,700	0	+ 8
Crawford	79,200	72,200	78,800	- 9	+ 9
Erie	16,100	12,000	12,600	-25	+ 5
Huron	33,300	29,800	32,500	-11	+ 9
Lorain	16,700	14,000	14,800	-16	+ 6
Ottawa	8,500	6,900	7,600	-19	+10
Richland	43,000	36,000	37,800	-16	+ 5
Sandusky	36,300	33,400	36,400	- 8	+ 9
Seneca	71,200	67,600	73,200	- 5	+ 8
Wyandot	67,400	59,800	64,500	-11	+ 8
Sub-area 2	404,700	364,700	393,900	-10	+ 8
Ashtabula	10,300	8,800	9,200	-15	+ 4
Columbiana	17,300	15,300	15,500	-12	+ 1
Cuyahoga	4,100	2,000	1,900	-51	- 5
Geauga	7,700	6,800	6,900	-12	+ 1
Lake	2,500	1,600	1,600	-36	0
Mahoning	11,700	9,900	10,400	-15	+ 5
Medina	19,900	15,400	15,700	-23	+ 2
Portage	14,900	12,000	12,500	-19	+ 4
Stark	32,900	25,900	27,400	-21	+ 6
Summit	8,700	6,100	6,500	-30	+ 6
Trumbull	10,400	11,100	11,300	+ 7	+ 2
Wayne	57,800	53,000	55,800	- 8	+ 5
Sub-area 3	198,200	167,900	174,700	-15	+ 4

Table I (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Auglaize	79,900	68,300	73,600	-15	+ 8
Champaign	96,100	76,500	84,200	-20	+10
Clark	91,000	80,000	88,100	-12	+10
Darke	110,200	97,100	104,800	-12	+ 8
Hardin	91,800	74,300	80,900	-19	+ 9
Logan	60,000	48,700	53,500	-19	+10
Mercer	100,300	97,100	105,800	- 3	+ 9
Miami	49,500	39,100	43,100	-21	+10
Shelby	59,400	55,800	60,300	- 6	+ 8
Sub-area 4	738,200	636,900	694,300	-14	+ 9
Delaware	55,700	47,800	50,000	-14	+ 5
Fairfield	89,400	86,300	91,500	- 4	+ 6
Fayette	169,600	178,800	188,900	+ 5	+ 6
Franklin	66,500	59,300	60,900	-11	+ 3
Knox	56,100	46,800	50,800	-17	+ 8
Licking	69,700	59,900	64,200	-14	+ 7
Madison	139,800	133,900	144,700	- 4	+ 8
Marion	90,800	78,400	83,100	-14	+ 6
Morrow	49,700	41,800	44,300	-16	+ 6
Pickaway	119,600	126,300	133,900	-16	+ 6
Ross	97,600	79,100	84,800	-19	+ 7
Union	85,800	74,900	77,100	-13	+ 3
Sub-area 5	1,120,300	1,013,300	1,074,200	-10	+ 6
Belmont	12,300	8,700	9,200	-29	+ 6
Carroll	11,900	10,400	11,200	-13	+ 8
Coshocton	38,600	32,200	34,100	-17	+ 6
Harrison	7,500	4,600	4,700	-39	+ 2
Holmes	48,400	47,600	49,500	- 2	+ 4
Jefferson	8,400	6,400	7,200	-24	+12
Tuscarawas	25,000	20,500	21,000	-18	+ 2
Sub-area 6	152,100	130,400	136,900	-14	+ 5

Table I (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Butler	99,000	93,400	96,700	- 6	+ 4
Clermont	36,500	25,900	26,600	-29	+ 3
Clinton	198,100	193,800	195,700	- 2	+ 1
Greene	157,300	176,300	179,200	+12	+ 2
Hamilton	20,600	11,800	11,700	-43	- 1
Montgomery	68,300	63,600	63,400	- 7	0
Preble	141,500	140,600	144,400	- 1	+ 3
Warren	90,500	81,500	82,100	-10	+ 1
Sub-area 7	811,800	786,900	799,800	- 3	+ 2
Adams	31,700	24,900	25,400	-22	+ 2
Brown	52,900	42,300	42,600	-20	+ 1
Gallia	15,200	9,300	9,600	-39	+ 3
Highland	132,100	110,500	111,000	-16	0
Jackson	10,300	8,200	8,500	-20	+ 4
Lawrence	8,300	5,300	5,500	-36	+ 4
Pike	19,300	10,600	10,900	-45	+ 3
Scioto	12,600	6,800	6,600	-46	- 3
Sub-area 8	282,400	217,900	220,100	-23	+ 1
Athens	9,300	5,800	6,300	-38	+ 9
Guernsey	13,400	8,700	9,100	-35	+ 5
Hocking	15,400	10,100	10,600	-34	+ 5
Meigs	11,000	8,200	8,700	-26	+ 6
Monroe	11,600	8,900	9,300	-23	+ 4
Morgan	12,900	8,400	8,800	-35	+ 5
Muskingum	28,400	21,900	23,000	-23	+ 5
Noble	11,000	6,800	7,400	-38	+ 9
Perry	24,600	20,300	21,500	-18	+ 6
Vinton	9,000	6,600	6,900	-27	+ 4
Washington	16,500	10,700	11,700	-35	+ 9
Sub-area 9	163,100	116,400	123,300	-29	+ 6
Ohio	4,423,000	3,909,100	4,144,100	-12	+ 6

Source: Derived from Appendix Tables B and F.

Table J

Number of Sheep and Lambs Marketed in 1950, 1958, and 1959 and
 Percentage Change in the Number Marketed from 1950 to 1958
 and 1958 to 1959, by Counties and Sub-areas, Ohio

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Allen	7,800	9,100	9,100	+17	0
Defiance	2,800	3,100	3,000	+11	- 3
Fulton	2,300	2,600	2,700	+13	+ 4
Hancock	15,000	16,700	16,600	+11	- 1
Henry	2,500	3,100	3,000	+24	- 3
Lucas	600	500	500	-17	0
Paulding	2,600	2,900	2,900	+12	0
Putnam	7,700	7,700	7,800	0	+ 1
Van Wert	4,000	4,000	4,000	0	0
Williams	5,300	5,300	5,500	0	+ 4
Wood	4,500	3,800	3,700	-16	- 3
Sub-area 1	55,100	58,800	58,800	+ 7	0
Ashland	8,300	12,900	12,500	+55	- 3
Crawford	14,700	22,100	21,000	+50	- 5
Erie	2,000	3,200	3,100	+60	- 3
Huron	11,400	15,500	14,800	+36	- 5
Lorain	3,700	5,400	5,200	+46	- 4
Ottawa	800	1,100	1,300	+38	+18
Richland	9,200	14,500	13,800	+58	- 5
Sandusky	3,900	4,400	4,200	+13	- 5
Seneca	14,700	19,600	18,600	+33	- 5
Wyandot	19,500	27,700	26,800	+42	- 3
Sub-area 2	88,200	126,400	121,300	+43	- 4
Ashtabula	900	1,900	1,900	+111	0
Columbiana	2,300	3,200	3,300	+39	+ 3
Cuyahoga	500	600	600	+20	0
Geauga	1,100	1,800	1,800	+64	0
Lake	600	800	800	+33	0
Mahoning	1,800	2,500	2,500	+39	0
Medina	2,700	4,800	4,800	+78	0
Portage	1,600	2,500	2,400	+56	- 4
Stark	2,000	2,600	2,600	+30	0
Summit	600	900	800	+50	-11
Trumbull	1,100	1,900	1,800	+73	- 5
Wayne	5,000	8,600	8,500	+72	- 1
Sub-area 3	20,200	32,100	31,800	+59	- 1

Table J (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Auglaize	7,300	10,300	10,500	+41	+ 2
Champaign	7,600	10,200	10,200	+34	0
Clark	10,400	14,500	14,800	+39	+ 2
Darke	5,800	9,300	9,400	+60	+ 1
Hardin	19,200	24,000	24,000	+25	0
Logan	15,100	18,700	18,900	+24	+ 1
Mercer	5,200	7,000	7,200	+35	+ 3
Miami	5,100	7,100	7,100	+39	0
Shelby	5,600	8,000	8,100	+43	+ 1
Sub-area 4	81,300	109,100	110,200	+34	+ 1
Delaware	11,900	16,000	16,000	+34	0
Fairfield	8,800	10,900	10,700	+24	- 2
Fayette	15,100	17,600	17,800	+17	+ 1
Franklin	6,000	8,700	9,000	+45	+ 3
Knox	25,900	31,800	32,100	+23	+ 1
Licking	21,800	29,200	29,400	+34	+ 1
Madison	10,300	14,000	14,000	+36	0
Marion	14,000	19,100	19,200	+36	+ 1
Morrow	18,300	24,900	25,000	+36	0
Pickaway	8,500	11,700	11,600	+38	- 1
Ross	4,700	6,800	6,700	+45	- 1
Union	14,400	17,000	16,900	+18	- 1
Sub-area 5	159,700	207,700	208,400	+30	0
Belmont	3,600	3,000	2,800	-17	- 7
Carroll	4,900	4,600	4,400	- 6	- 4
Coshocton	13,500	15,200	14,300	+13	- 6
Harrison	12,700	13,500	12,900	+ 6	- 4
Holmes	4,800	6,400	6,200	+33	- 3
Jefferson	2,600	2,800	2,700	+ 8	- 4
Tuscarawas	3,800	5,200	4,900	+37	- 6
Sub-area 6	45,900	50,700	48,200	+10	- 5

Table J (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Butler	6,300	9,600	9,100	+52	- 5
Clermont	1,300	2,200	2,100	+69	- 5
Clinton	7,400	12,800	12,700	+73	- 1
Greene	11,900	16,700	16,100	+40	- 4
Hamilton	1,800	2,000	1,800	+11	-10
Montgomery	4,700	6,600	6,400	+40	- 3
Preble	3,200	5,200	5,100	+63	- 2
Warren	3,700	6,500	6,500	+76	0
Sub-area 7	40,300	61,600	59,800	+53	- 3
Adams	1,800	2,400	2,300	+33	- 4
Brown	3,000	4,000	3,700	+33	- 7
Gallia	2,200	2,400	2,200	+ 9	- 8
Highland	8,400	12,100	11,200	+44	- 7
Jackson	1,000	1,500	1,500	+50	0
Lawrence	400	600	500	+50	-17
Pike	900	1,100	1,000	+22	- 9
Scioto	200	400	400	+100	0
Sub-area 8	17,900	24,500	22,800	+37	- 7
Athens	5,000	6,800	6,300	+36	- 7
Guernsey	7,900	9,900	9,100	+25	- 8
Hocking	2,000	2,600	2,500	+30	- 4
Meigs	3,000	3,000	2,900	0	- 3
Monroe	1,900	2,200	2,000	+16	- 9
Morgan	12,000	15,100	13,900	+26	- 8
Muskingum	16,500	18,100	17,000	+10	- 6
Noble	8,700	9,700	8,900	+11	- 8
Perry	6,500	7,500	7,100	+15	- 5
Vinton	1,500	2,000	1,800	+33	-10
Washington	4,400	4,900	4,500	+11	- 8
Sub-area 9	69,400	81,800	76,000	+18	- 7
Ohio	578,000	752,700	737,300	+30	- 2

Source: Derived from Appendix Tables B and H.

Table K

Number of Marketing Units for Cattle, Calves, Hogs
and Sheep and Lambs in 1950, 1958, and 1959,
by Counties and Sub-areas, Ohio

County and Sub-area	1950 Marketing Units			
	Cattle	Calves	Hogs	Sheep & Lambs
Allen	4,700	2,000	16,900	1,600
Defiance	3,200	1,400	7,200	600
Fulton	5,500	2,400	17,500	500
Hancock	6,000	2,600	22,900	3,000
Henry	3,500	1,500	8,000	500
Lucas	1,200	500	4,400	100
Paulding	2,000	900	3,900	500
Putnam	5,400	2,400	22,600	1,500
Van Wert	3,100	1,400	8,000	800
Williams	4,800	2,100	15,600	1,100
Wood	5,200	2,200	11,000	900
Sub-area 1	44,600	19,400	138,000	11,100
Ashland	4,900	2,100	8,300	1,700
Crawford	4,900	2,200	19,800	2,900
Erie	1,900	800	4,000	400
Huron	4,000	1,700	8,300	2,300
Lorain	5,100	2,300	5,600	900
Ottawa	4,700	700	2,100	200
Richland	5,100	2,200	10,800	1,800
Sandusky	4,600	2,000	9,100	800
Seneca	5,500	2,400	17,800	2,900
Wyandot	3,900	1,700	16,800	3,900
Sub-area 2	41,600	18,100	102,600	17,800
Ashtabula	7,600	3,300	3,400	200
Columbiana	5,800	2,500	4,300	500
Cuyahoga	700	300	1,400	100
Geauga	4,000	1,800	2,600	300
Lake	800	300	800	200
Mahoning	4,400	1,900	3,900	400
Medina	5,900	2,500	6,600	700
Portage	5,200	2,300	5,000	400
Stark	7,000	3,100	8,200	400
Summit	2,100	900	2,900	100
Trumbull	5,900	2,600	3,500	300
Wayne	10,000	4,300	14,500	1,000
Sub-area 3	50,400	25,800	57,100	4,600

Table K (Continued)

County and Sub-area	1950 Marketing Units			
	Cattle	Calves	Hogs	Sheep & Lambs
Auglaize	5,200	2,300	20,000	1,500
Champaign	7,000	3,000	24,000	1,500
Clark	5,900	2,500	22,700	2,100
Darke	8,900	3,900	27,500	1,200
Hardin	4,800	2,100	22,900	3,800
Logan	6,200	2,700	15,000	3,000
Mercer	6,900	3,000	25,100	1,000
Miami	5,900	2,600	12,400	1,000
Shelby-	5,700	2,400	14,900	1,100
Sub-area 4	56,500	24,500	184,500	16,200
Delaware	6,500	2,800	14,000	2,400
Fairfield	7,700	3,300	22,400	1,700
Fayette	4,200	1,800	42,400	3,000
Franklin	5,700	2,500	16,600	1,200
Knox	6,700	2,900	14,000	5,200
Licking	9,400	4,100	17,400	4,400
Madison	5,500	2,400	35,000	2,000
Marion	4,000	1,700	22,700	2,800
Morrow	5,000	2,200	12,400	3,700
Pickaway	6,800	3,000	37,400	1,700
Ross	6,200	2,700	24,400	900
Union -	5,800	2,500	21,400	2,900
Sub-area 5	73,500	31,900	280,100	31,900
Belmont	6,800	3,000	3,100	700
Carroll	4,200	1,800	3,000	1,000
Coshocton	5,600	2,500	9,600	2,700
Harrison	3,800	1,600	1,900	2,500
Holmes	6,200	2,700	12,100	1,000
Jefferson	2,800	1,200	2,100	500
Tuscarawas	5,700	2,500	6,200	800
Sub-area 6	35,100	15,300	38,000	9,200

Table K (Continued)

County and Sub-area	1950 Marketing Units			
	Cattle	Calves	Hogs	Sheep and Lambs
Butler	6,400	2,800	33,000	1,600
Clermont	4,700	2,000	12,200	300
Clinton	4,200	1,800	49,500	1,500
Greene	4,700	2,100	39,300	2,400
Hamilton	2,600	1,100	6,900	500
Montgomery	5,200	2,300	17,100	900
Preble	5,700	2,500	35,400	600
Warren	5,100	2,200	30,100	900
Sub-area 7	38,600	16,800	223,500	8,700
Adams	4,800	2,100	7,900	300
Brown	5,600	2,400	17,600	700
Gallia	4,300	1,900	3,800	400
Highland	6,900	3,000	33,000	1,700
Jackson	2,600	1,100	2,600	200
Lawrence	2,700	1,200	2,100	100
Pike	2,400	1,100	4,800	200
Scioto	3,100	1,300	3,200	100
Sub-area 8	32,400	14,100	75,000	3,700
Athens	4,200	1,800	2,300	1,000
Guernsey	5,800	2,500	3,300	1,600
Hocking	1,900	800	3,800	400
Meigs	3,600	1,600	2,800	600
Monroe	4,700	2,000	2,900	400
Morgan	4,400	1,900	3,200	2,400
Muskingum	6,700	2,900	7,100	3,300
Noble	5,000	2,200	2,800	1,700
Perry	3,600	1,600	6,200	1,300
Vinton	1,500	700	2,300	300
Washington	5,900	2,600	4,100	900
Sub-area 9	47,300	20,600	40,800	13,900
Ohio	429,000	186,500	1,139,600	117,100

Table K (Continued)

County and Sub-area	1958 Marketing Units			
	Cattle	Calves	Hogs	Sheep & Lambs
Allen	7,300	1,500	13,100	1,800
Defiance	5,300	1,100	6,100	600
Fulton	12,300	2,500	15,400	500
Hancock	9,600	2,000	20,700	3,300
Henry	6,800	1,400	7,100	600
Lucas	2,100	400	4,200	100
Paulding	2,800	600	2,900	600
Putnam	9,000	1,900	20,100	1,600
Van Wert	5,000	1,000	6,000	800
Williams	8,500	1,700	12,900	1,100
Wood --	9,600	2,000	10,200	800
Sub-area 1	78,300	16,100	118,700	11,800
Ashland	8,900	1,800	3,200	2,600
Crawford	8,800	1,800	18,100	4,400
Erie	3,200	700	3,000	600
Huron	6,000	1,200	7,500	3,100
Lorain	8,400	1,700	4,700	1,300
Ottawa	2,600	500	1,700	200
Richland	8,500	1,700	9,000	2,900
Sandusky	8,000	1,700	8,400	900
Seneca	9,100	1,900	16,900	3,900
Wyandot--	6,000	1,200	14,900	5,600
Sub-area 2	69,500	14,200	92,400	25,500
Ashtabula	12,000	2,500	2,900	500
Columbiana	8,800	1,800	3,800	600
Cuyahoga	600	100	700	200
Geauga	5,400	1,100	2,300	500
Lake	1,000	200	500	200
Mahoning	6,700	1,400	3,300	600
Medina	9,800	2,000	5,200	1,200
Portage	7,700	1,600	4,000	600
Stark	11,500	2,400	6,500	500
Summit	3,100	600	2,000	200
Trumbull	9,000	1,800	3,700	500
Wayne--	18,100	3,700	13,200	1,700
Sub-area 3	93,700	19,200	48,100	7,300

94
Table K (Continued)

County and Sub-area	1958 Marketing Units			
	Cattle	Calves	Hogs	Sheep & Lambs
Auglaize	8,300	1,700	17,100	2,100
Champaign	12,600	2,600	19,100	2,000
Clark	10,700	2,200	20,000	2,900
Darke	13,800	2,800	24,300	1,900
Hardin	8,500	1,800	18,500	4,800
Logan	10,100	2,100	12,200	3,700
Mercer	10,700	2,200	24,300	1,400
Miami	9,300	1,900	9,800	1,400
Shelby	9,200	1,900	13,900	1,600
Sub-area 4	93,200	19,200	159,200	21,800
Delaware	9,900	2,100	11,900	3,200
Fairfield	13,300	2,700	21,600	2,200
Fayette	8,400	1,700	44,700	3,500
Franklin	9,000	1,900	14,800	1,800
Knox	10,600	2,200	11,700	6,400
Licking	15,400	3,200	15,000	5,800
Madison	11,300	2,300	33,500	2,800
Marion	7,000	1,400	19,600	3,800
Morrow	7,900	1,600	10,400	5,000
Pickaway	13,300	2,700	31,600	2,300
Ross	10,900	2,300	19,800	1,400
Union -	9,500	1,900	18,700	3,400
Sub-area 5	126,300	26,000	253,300	41,600
Belmont	9,300	1,900	2,200	600
Carroll	6,600	1,300	2,600	900
Coshocton	8,000	1,600	8,000	3,000
Harrison	4,800	1,000	1,200	2,700
Holmes	10,400	2,200	11,900	1,300
Jefferson	4,300	900	1,600	600
Tuscarawas	9,200	1,900	5,100	1,000
Sub-area 6	52,600	10,800	32,600	10,100

Table K (Continued)

County and Sub-area	1958 Marketing Units			
	Cattle	Calves	Hogs	Sheep & Lambs
Butler	11,300	2,300	31,100	2,400
Clermont	6,900	1,400	8,600	500
Clinton	8,400	1,800	48,400	2,600
Greene	8,900	1,800	44,100	3,300
Hamilton	3,600	800	3,900	500
Montgomery	8,300	1,700	15,900	1,300
Preble	10,300	2,100	35,200	1,100
Warren	8,900	1,800	27,200	1,600
Sub-area 7	66,600	13,700	214,400	13,300
Adams	7,600	1,600	6,200	500
Brown	8,900	1,800	14,100	1,000
Gallia	6,900	1,400	2,300	500
Highland	12,100	2,500	27,600	2,400
Jackson	4,200	800	2,100	300
Lawrence	4,000	800	1,300	100
Pike	3,400	700	2,700	200
Scioto	4,200	900	1,700	100
Sub-area 8	51,300	10,500	58,000	5,100
Athens	6,500	1,300	1,500	1,400
Guernsey	8,500	1,800	2,200	2,000
Hocking	2,800	600	2,500	500
Meigs	5,500	1,100	2,000	600
Monroe	6,100	1,300	2,200	400
Morgan	6,800	1,400	2,100	3,000
Muskingum	11,500	2,300	5,500	3,600
Noble	6,500	1,300	1,700	2,000
Perry	5,800	1,200	5,100	1,500
Vinton	2,300	500	1,600	400
Washington	9,600	2,000	2,700	1,000
Sub-area 9	71,900	14,800	29,100	16,400
Ohio	703,400	144,500	1,005,800	152,900

Table A (Continued)

County and Sub-area	1959 Marketing Units			
	Cattle	Calves	Hogs	Sheep and Lambs
Allen	7,700	1,600	14,400	1,800
Defiance	5,500	1,100	6,400	600
Fulton	13,100	2,700	17,100	600
Hancock	10,000	2,100	22,700	3,300
Henry	7,200	1,500	7,700	600
Lucas	2,100	400	4,700	100
Paulding	2,900	600	3,100	600
Putnam	9,400	1,900	22,600	1,600
Van Wert	5,200	1,100	6,900	800
Williams	9,100	1,900	14,600	1,100
Wood	10,000	2,000	11,500	700
Sub-area 1	82,200	16,900	131,700	11,800
Ashland	9,300	1,900	8,900	2,500
Crawford	9,000	1,900	19,700	4,200
Erie	3,400	700	3,200	600
Huron	6,200	1,300	8,100	3,000
Lorain	8,800	1,800	4,900	1,200
Ottawa	2,600	500	1,900	300
Richland	8,800	1,800	9,500	2,800
Sandusky	8,400	1,700	9,100	800
Seneca	9,600	2,000	18,300	3,700
Wyandot	6,200	1,300	16,100	5,300
Sub-area 2	72,300	14,900	99,700	24,500
Ashtabula	12,400	2,600	3,000	500
Columbiana	9,200	1,900	3,900	700
Cuyahoga	600	100	600	100
Geauga	5,500	1,100	2,300	500
Lake	1,000	200	500	200
Mahoning	6,700	1,400	3,500	600
Medina	10,000	2,100	5,200	1,200
Portage	7,900	1,600	4,200	600
Stark	12,000	2,500	6,900	500
Summit	3,100	600	2,200	200
Trumbull	9,000	1,800	3,800	400
Wayne	19,100	3,900	13,900	1,700
Sub-area 3	96,500	19,800	50,000	7,200

Table K (Continued)

County and Sub-area	1959 Marketing Units			
	Cattle	Calves	Hogs	Sheep and Lambs
Auglaize	8,400	1,700	18,400	2,100
Champaign	12,800	2,600	21,100	2,100
Clark	10,800	2,200	22,000	3,000
Darke	13,900	2,900	26,200	1,900
Hardin	8,600	1,800	20,200	4,800
Logan	10,100	2,100	13,400	3,800
Mercer	10,700	2,200	26,400	1,400
Miami	9,600	2,000	10,800	1,400
Shelby	9,200	1,900	15,100	1,600
Sub-area 4	94,100	19,400	173,600	22,100
Delaware	10,100	2,100	12,500	3,200
Fairfield	13,300	2,700	22,800	2,100
Fayette	8,500	1,800	47,200	3,600
Franklin	8,900	1,800	15,200	1,800
Knox	10,800	2,200	12,700	6,400
Licking	15,400	3,200	16,000	5,900
Madison	11,100	2,300	36,200	2,800
Marion	6,800	1,400	20,800	3,900
Morrow	7,800	1,600	11,100	5,000
Pickaway	13,100	2,700	33,500	2,300
Ross	11,200	2,300	21,200	1,300
Union	9,300	1,900	19,300	3,400
Sub-area 5	126,300	26,000	268,500	41,700
Belmont	9,300	1,900	2,300	500
Carroll	6,700	1,400	2,800	900
Coshocton	8,200	1,700	8,500	2,900
Harrison	5,000	1,000	1,200	2,600
Holmes	10,600	2,200	12,400	1,200
Jefferson	4,400	900	1,800	500
Tuscarawas	9,500	1,900	5,200	1,000
Sub-area 6	53,700	11,000	34,200	9,600

Table K (Continued)

County and Sub-area	1959 Marketing Units			
	Cattle	Calves	Hogs	Sheep and Lambs
Butler	10,800	2,200	32,200	2,300
Clermont	6,600	1,300	8,900	500
Clinton	8,100	1,700	49,000	2,600
Greene	8,400	1,700	44,800	3,200
Hamilton	3,400	700	39,000	400
Montgomery	8,100	1,700	15,800	1,300
Preble	9,900	2,000	36,100	1,000
Warren	8,600	1,800	27,400	1,600
Sub-area 7	63,900	13,100	218,100	12,900
Adams	7,800	1,600	6,300	500
Brown	8,900	1,800	14,200	900
Gallia	6,800	1,400	2,400	400
Highland	11,700	2,400	27,800	2,300
Jackson	4,000	800	2,100	300
Lawrence	4,000	800	1,400	100
Pike	3,400	700	2,700	200
Scioto	4,200	900	1,700	100
Sub-area 8	50,800	10,400	58,600	4,800
Athens	6,300	1,300	1,600	1,200
Guernsey	8,200	1,700	2,300	1,800
Hocking	2,700	600	2,600	500
Meigs	5,500	1,100	2,200	600
Monroe	6,000	1,200	2,300	400
Morgan	6,500	1,400	2,200	2,800
Muskingum	11,400	2,300	5,800	3,400
Noble	6,500	1,300	1,800	1,800
Perry	5,700	1,200	5,400	1,400
Vinton	2,300	500	1,700	400
Washington	9,400	1,900	2,900	900
Sub-area 9	70,500	14,500	30,800	15,200
Ohio	710,300	146,000	1,065,200	149,800

Source: Table 16 and Appendix Tables D, E, G and I.

Table L

Total Marketing Units in 1950, 1958, and 1959 and Percentage
Change in Total Marketing Units from 1950 to 1958 and
1958 to 1959, by Counties and Sub-areas, Ohio

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Allen	25,200	23,700	25,500	- 6	+ 8
Defiance	12,400	13,100	13,600	+ 6	+ 4
Fulton	25,900	30,700	33,500	+19	+ 9
Hancock	34,500	35,600	38,100	+ 3	+ 7
Henry	13,500	15,900	17,000	+18	+ 7
Lucas	6,200	6,800	7,300	+10	+ 7
Paulding	7,300	6,900	7,200	- 5	+ 4
Putnam	31,900	32,600	35,500	+ 2	+ 9
Van Wert	13,300	12,800	14,000	- 4	+ 9
Williams	23,600	24,200	26,700	+ 3	+10
Wood	19,300	22,600	24,200	+17	+ 7
Sub-area 1	213,100	224,900	242,600	+ 6	+ 8
Ashland	17,000	21,500	22,600	+26	+ 5
Crawford	29,800	33,100	34,800	+11	+ 5
Erie	7,100	7,500	7,900	+ 6	+ 5
Huron	16,300	17,800	18,600	+ 9	+ 4
Lorain	13,900	16,100	16,800	+16	+ 4
Ottawa	4,700	5,000	5,300	+ 6	+ 6
Richland	19,900	22,100	22,900	+11	+ 4
Sandusky	16,500	19,000	20,000	+16	+ 5
Seneca	28,600	31,800	33,600	+11	+ 6
Wyandot	26,300	27,700	28,900	+ 5	+ 4
Sub-area 2	180,100	201,600	211,400	+12	+ 5
Ashtabula	14,500	17,900	18,500	+23	+ 3
Columbiana	13,100	15,000	15,700	+15	+ 5
Cuyahoga	2,500	1,600	1,400	-36	-12
Geauga	8,700	9,300	9,400	+ 8	+ 1
Lake	2,100	1,900	1,900	-10	0
Mahoning	10,600	12,000	12,200	+13	+ 2
Medina	15,700	18,200	18,500	+16	+ 2
Portage	12,900	13,900	14,300	+ 8	+ 3
Stark	18,700	20,900	21,900	+12	+ 5
Summit	6,000	5,900	6,100	- 2	+ 3
Trumbull	12,300	15,000	15,000	+22	0
Wayne	29,800	36,700	38,600	+23	+ 5
Sub-area 3	146,900	168,300	173,500	+15	+ 3

Table L (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Auglaize	29,000	29,200	30,600	+ 1	+ 5
Champaign	35,500	36,300	38,600	+ 2	+ 6
Clark	33,200	35,800	38,000	+ 8	+ 6
Darke	41,500	42,800	44,900	+ 3	+ 5
Hardin	33,600	33,600	35,400	0	+ 5
Logan	26,900	28,100	29,400	+ 4	+ 5
Mercer	36,000	38,600	40,700	+ 7	+ 5
Miami	21,900	22,400	23,800	+ 2	+ 6
Shelby	24,100	26,600	27,800	+10	+ 5
Sub-area 4	281,700	293,400	309,200	+ 4	+ 5
Delaware	25,700	27,100	27,900	+ 5	+ 3
Fairfield	35,100	39,800	40,900	+13	+ 3
Fayette	51,400	58,300	61,100	+13	+ 5
Franklin	26,000	27,500	27,700	+ 6	+ 1
Knox	28,800	30,900	32,100	+ 7	+ 4
Licking	35,300	39,400	40,500	+12	+ 3
Madison	44,900	49,900	52,400	+11	+ 5
Marion	31,200	31,800	32,900	+ 2	+ 3
Morrow	23,300	24,900	25,500	+ 7	+ 2
Pickaway	48,900	49,900	51,600	+ 2	+ 3
Ross	34,200	34,400	36,000	+ 1	+ 5
Union	32,600	33,300	33,900	+ 2	+ 2
Sub-area 5	417,400	447,200	462,500	+ 7	+ 3
Belmont	13,600	14,000	14,000	+ 3	0
Carroll	10,000	11,400	11,800	+14	+ 4
Coshocton	20,400	20,600	21,300	+ 1	+ 3
Harrison	9,800	9,700	9,800	- 1	+ 1
Holmes	22,000	25,800	26,400	+17	+ 2
Jefferson	6,600	7,400	7,600	+12	+ 3
Tuscarawas	15,200	17,200	17,600	+12	+ 2
Sub-area 6	97,600	106,100	108,500	+ 9	+ 2

Table L (Continued)

County and Sub-area	Number marketed			Percentage change	
	1950	1958	1959	1950-58	1958-59
Butler	43,800	47,100	47,500	+ 8	+ 1
Clermont	19,200	17,400	17,300	- 9	- 1
Clinton	57,000	61,200	61,400	+ 7	+ 1
Greene	48,500	58,100	58,100	+ 2	0
Hamilton	11,100	8,800	8,400	-21	- 5
Montgomery	25,500	27,200	26,900	+ 7	- 1
Preble	44,200	48,700	49,000	+10	+ 1
Warren	38,300	39,500	39,400	+ 3	- 1
Sub-area 7	287,600	308,000	308,000	+ 7	0
Adams	15,100	15,900	16,200	+ 5	+ 2
Brown	26,300	25,800	25,800	- 2	0
Gallia	10,400	11,100	11,000	+ 7	0
Highland	44,600	44,600	44,200	0	- 1
Jackson	6,500	7,400	7,200	+14	- 3
Lawrence	6,100	6,200	6,300	+ 2	+ 2
Pike	8,500	7,000	7,000	-18	0
Scioto	7,700	6,900	6,900	-10	0
Sub-area 8	125,200	124,900	124,600	- 1	- 1
Athens	9,300	10,700	10,400	+15	- 3
Guernsey	13,200	14,500	14,000	+10	- 3
Hocking	6,900	6,400	6,400	- 7	0
Meigs	8,600	9,200	9,400	+ 7	+ 2
Monroe	10,000	10,000	9,900	0	- 1
Morgan	11,900	13,300	12,900	+12	- 3
Muskingum	20,000	22,900	22,900	+15	- 1
Noble	11,700	11,500	11,400	- 2	- 1
Perry	12,700	13,600	13,700	+ 7	+ 1
Vinton	4,800	4,800	4,900	0	+ 2
Washington	13,500	15,300	15,100	+13	- 1
Sub-area 9	122,600	132,200	131,000	+ 8	- 1
Ohio	1,872,200	2,006,600	2,071,300	+ 7	+ 3

Source: Appendix Table J.